



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME (Logo, address, or descriptive name of site) <u>L.E. Carpenter and Company</u>	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER <u>170 North Main Street</u>
03 CITY <u>Wharton</u>	04 STATE 05 ZIP CODE 06 COUNTY 07 COUNTY CODE 08 FIPS DIST <u>NJ</u> <u>07885</u> <u>Morris</u>
09 COORDINATES LATITUDE <u>40° 34' 15" N</u> LONGITUDE <u>75° 34' 40" W</u>	10 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION <u>12.12.84</u> MONTH DAY YEAR	02 SITE STATUS <input checked="" type="checkbox"/> ACTIVE <input type="checkbox"/> INACTIVE	03 YEARS OF OPERATION <u>of waste impoundment</u> <u>1</u> <u>1970</u> BEGINNING YEAR ENDING YEAR
04 AGENCY PERFORMING INSPECTION (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR <input checked="" type="checkbox"/> E. STATE <input type="checkbox"/> F. STATE CONTRACTOR <input type="checkbox"/> G. OTHER		

05 CHIEF INSPECTOR <u>Gregory Cunningham</u>	06 TITLE <u>Senior Environmental Engineer</u>	07 ORGANIZATION <u>NJDEP</u>	08 TELEPHONE NO. <u>609 292-4438</u>
09 OTHER INSPECTORS <u>William Kramer</u>	10 TITLE <u>Geologist</u>	11 ORGANIZATION <u>NJDEP</u>	12 TELEPHONE NO. <u>609 292-0668</u>
			()
			()
			()
			()

13 SITE REPRESENTATIVES INTERVIEWED <u>Frank Aron</u>	14 TITLE <u>Group leader</u>	15 ADDRESS <u>170 North Main Street</u>	16 TELEPHONE NO. <u>(201) 366-2020</u>
			()
			()
			()
			()
			()

BLOCK <u>801</u> LOTS <u>1, 2, and 3</u>		
17 ACCESS GAINED BY (Check one) <input checked="" type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION <u>1:30 pm</u>	19 WEATHER CONDITIONS <u>overcast</u>

IV. INFORMATION AVAILABLE FROM

01 CONTACT <u>Robert Hayton</u>	02 OF (Agency/Organization) <u>NJDEP/Hazardous Site Mitigation Admin</u>	03 TELEPHONE NO. <u>609 292-1213</u>		
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM <u>Gregory Cunningham</u>	05 AGENCY <u>DWR</u>	06 ORGANIZATION <u>NJDEP</u>	07 TELEPHONE NO. <u>(609) 292-0668</u>	08 DATE <u>12.12.84</u> MONTH DAY YEAR





POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)		02 WASTE QUANTITY AT SITE (Measure of waste quantity must be indicated)	03 WASTE CHARACTERISTICS (Check all that apply)	
<input checked="" type="checkbox"/> A. SOLID <input type="checkbox"/> B. POWDER, FINES <input checked="" type="checkbox"/> C. SLUDGE <input type="checkbox"/> D. OTHER _____ (Specify)	<input type="checkbox"/> E. SLURRY <input checked="" type="checkbox"/> F. LIQUID <input type="checkbox"/> G. GAS	TONS <u>4,074</u> CUBIC YARDS _____ NO. OF DRUMS _____	<input checked="" type="checkbox"/> A. TOXIC <input type="checkbox"/> B. CORROSIVE <input type="checkbox"/> C. RADIOACTIVE <input checked="" type="checkbox"/> D. PERSISTENT <input type="checkbox"/> E. SOLUBLE <input type="checkbox"/> F. INFECTIOUS <input checked="" type="checkbox"/> G. FLAMMABLE <input type="checkbox"/> H. IGNITABLE <input checked="" type="checkbox"/> I. HIGHLY VOLATILE <input type="checkbox"/> J. EXPLOSIVE <input checked="" type="checkbox"/> K. REACTIVE <input type="checkbox"/> L. INCOMPATIBLE <input type="checkbox"/> M. NOT APPLICABLE	

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	4074	Cubic yards	removed from impoundment to off location.
OLW	OLY WASTE			
SOL	SOLVENTS	20,000	gallons	floating on ground water
PBO	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently used CAS numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SIV	Styrene		impoundment	750,000	ppb
	Xylene		impoundment	7100,000	ppb
	Nonane		impoundment	750,000	ppb
	Cumene		impoundment	750,000	ppb
	1,1,2 Trichloroethane		impoundment	102	ppb
	1,1,2,2-tetrachloroethane		impoundment	3703	ppb
	m-xylene		impoundment	3940	ppb
	p-xylene		impoundment	35741	ppb
	butyl benzene		impoundment	11650	ppb
	chloroform		impoundment	203	ppb
	benzene		impoundment	78	ppb
	toluene		impoundment	4526	ppb
	Octane		impoundment	208	ppb
	trichloroethylene		impoundment	48	ppb
	lead		impoundment	129.65	mg/L
	nickel		impoundment	1259	mg/L

V. FEEDSTOCKS (See Appendix for CAS numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Give specific references, e.g., state files, analytical reports)

waste sludge analyses



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: 227,000

02 ☐ OBSERVED (DATE: August 18, 1980)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

*Solvents floating upon ground water surface
pollutants dissolved in ground water under site*

01 ☐ B. SURFACE WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

*Surface water potentially affected due to migration of
plume*

01 ☐ C. CONTAMINATION OF AIR

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

*the sludge removed from impoundment in 1982 was
flameable and reactive.*

01 ☐ E. DIRECT CONTACT

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☒ F. CONTAMINATION OF SOIL

03 AREA POTENTIALLY AFFECTED: 11,000 ft²

02 ☐ OBSERVED (DATE: April 17, 1982)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ G. DRINKING WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: 90,000

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

*Sole source aquifer could be affected by
contamination by L.E. Carpenter.*

01 ☐ H. WORKER EXPOSURE/INJURY

03 WORKERS POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ I. POPULATION EXPOSURE/INJURY

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continue)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include names of species)

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES

(Include Name(s) of Facility, Location, and Date)
03 POPULATION POTENTIALLY AFFECTED: 27,000

02 ☒ OBSERVED (DATE: August 18, 1980) ☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

Analytical results of ground water monitoring wells collected on August 18, 1980 indicates that the wastes are not effectively contained

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED

contaminated ground water onsite is probably flowing onto offsite properties.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 27,000 (population supplied by Dover and Warton Municipal WWS)

IV. COMMENTS

in 1982 L.E. Carpenter removed 4,074 yd³ of Sludge from the site to an approved offsite location. However a severe ground water pollution problem exists onsite.

V. SOURCES OF INFORMATION (City, Agency, Reference, Date, Name, Title, Address, Phone)

ground water analyses, Sludge analyses, inspection reports conducted by the NJDEP Division of Water Resources, and the Federal Register, Volume 49, No. 16.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01. STATE 02. SITE NUMBER

II. PERMIT INFORMATION

01. TYPE OF PERMIT ISSUED (Check all that apply)	02. PERMIT NUMBER	03. DATE ISSUED	04. EXPIRATION DATE	05. COMMENTS
<input type="checkbox"/> A. NPDES	NJ0003611 C			thermal discharge
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR	*			
<input type="checkbox"/> D. RCRA	NJ000216879B			generator
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input checked="" type="checkbox"/> G. STATE (Specify)	NJ0003611 2			Rapid infiltration lagoon
<input type="checkbox"/> H. LOCAL (Specify)				(used for pumping tests)
<input type="checkbox"/> I. OTHER (Specify)				
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01. STORAGE/DEPOSAL (Check all that apply)	02. AMOUNT	03. UNIT OF MEASURE	04. TREATMENT (Check all that apply)	05. OTHER
<input checked="" type="checkbox"/> A. SURFACE IMPOUNDMENT	9,074	Yd ³	<input type="checkbox"/> A. INCINERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input type="checkbox"/> C. DRUMS, ABOVE GROUND			<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input checked="" type="checkbox"/> D. TANK, ABOVE GROUND	* *		<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL			<input checked="" type="checkbox"/> F. SOLVENT RECOVERY	06. AREA OF SITE
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	11.23
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER (Specify)	
<input type="checkbox"/> I. OTHER (Specify)				

07. COMMENTS	08. COMMENTS	09. COMMENTS
* Stack 1 - 45998 Stack 2 - 19725 Stack 3 - 19726 Stack 4 - 19724 Stack 5 - 15514 Stack 6 - 15513	Stack 8 - 63545 Stack 10 - 51905 Stack 24 - 37582 Stack 25 - 63361 Stack 26 - 63362	Although Frank Aron did not know the exact size of the recovery tank, he said it was approximately 10,000 gallons in capacity.

IV. CONTAINMENT

01. CONTAINMENT OF WASTES (Check one)
<input type="checkbox"/> A. ADEQUATE, SECURE <input type="checkbox"/> B. MODERATE <input checked="" type="checkbox"/> C. INADEQUATE, POOR <input type="checkbox"/> D. INSECURE, UNSOUND, DANGEROUS

02. DESCRIPTION OF DRUMS, DROPS, LINES, BARRIERS, ETC.

Impoundment contained approximately over 9,000 yd³ of sludge. It was irregularly shaped and consisted of several interconnected parallel trenches. The surface of the impoundment was approximately the same elevation as the surrounding grounds. The impoundment was approximately 10 feet deep.

V. ACCESSIBILITY

01. WASTE EASILY ACCESSIBLE: <input type="checkbox"/> YES <input type="checkbox"/> NO
02. COMMENTS In 1982 over 9,000 yd ³ of sludge removed from site

VI. SOURCES OF INFORMATION (Give specific references, e.g., EPA file, company records)

NJDEP, DIVISION OF WATER RESOURCES files.
Information also obtained from NJDEP, Division of Waste Management and Division of Environmental Quality.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as appropriate)	02 STATUS	03 DISTANCE TO SITE																	
<table border="0"><tr><td>SURFACE</td><td>WELL</td></tr><tr><td>COMMUNITY A <input checked="" type="checkbox"/></td><td>B <input checked="" type="checkbox"/></td></tr><tr><td>NON-COMMUNITY C <input type="checkbox"/></td><td>D <input type="checkbox"/></td></tr></table>	SURFACE	WELL	COMMUNITY A <input checked="" type="checkbox"/>	B <input checked="" type="checkbox"/>	NON-COMMUNITY C <input type="checkbox"/>	D <input type="checkbox"/>	<table border="0"><tr><td>ENDANGERED</td><td>AFFECTED</td><td>MONITORED</td></tr><tr><td>A <input type="checkbox"/></td><td>B <input type="checkbox"/></td><td>C <input checked="" type="checkbox"/></td></tr><tr><td>D <input type="checkbox"/></td><td>E <input type="checkbox"/></td><td>F <input type="checkbox"/></td></tr></table>	ENDANGERED	AFFECTED	MONITORED	A <input type="checkbox"/>	B <input type="checkbox"/>	C <input checked="" type="checkbox"/>	D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>	<table border="0"><tr><td>A. _____ (mi)</td></tr><tr><td>B. <u>0.5</u> (mi)</td></tr></table>	A. _____ (mi)	B. <u>0.5</u> (mi)
SURFACE	WELL																		
COMMUNITY A <input checked="" type="checkbox"/>	B <input checked="" type="checkbox"/>																		
NON-COMMUNITY C <input type="checkbox"/>	D <input type="checkbox"/>																		
ENDANGERED	AFFECTED	MONITORED																	
A <input type="checkbox"/>	B <input type="checkbox"/>	C <input checked="" type="checkbox"/>																	
D <input type="checkbox"/>	E <input type="checkbox"/>	F <input type="checkbox"/>																	
A. _____ (mi)																			
B. <u>0.5</u> (mi)																			

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)			
<input checked="" type="checkbox"/> A. ONLY SOURCE FOR DRINKING <input type="checkbox"/> B. DRINKING (Other sources available) COMMERCIAL INDUSTRIAL IRRIGATION (No other water sources available) <input type="checkbox"/> C. COMMERCIAL INDUSTRIAL IRRIGATION (Limited other sources available) <input type="checkbox"/> D. NOT USED, UNUSABLE			
02 POPULATION SERVED BY GROUND WATER <u>727,000</u>		03 DISTANCE TO NEAREST DRINKING WATER WELL <u>0.50</u> (mi)	
04 DEPTH TO GROUNDWATER _____ (ft)	05 DIRECTION OF GROUNDWATER FLOW _____	06 DEPTH TO AQUIFER OF CONCERN _____ (ft)	07 POTENTIAL YIELD OF AQUIFER <u>>1500 gpm</u> 08 SOLE SOURCE AQUIFER <input type="checkbox"/> YES <input type="checkbox"/> NO

09 DESCRIPTION OF WELLS (including design, depth, and location relative to population and buildings)

Wharton Supply wells and Dover supply wells are approximately sixty to eighty feet in depth and they are located on a sole source aquifer.

10 RECHARGE AREA (Check one)	11 DISCHARGE AREA
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO COMMENTS: Federal Register Vol 98, No. 10 states that this flood plain is a recharge zone.	<input type="checkbox"/> YES <input type="checkbox"/> NO COMMENTS:

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)			
<input checked="" type="checkbox"/> A. RESERVOIR, RECREATION DRINKING WATER SOURCE <input type="checkbox"/> B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES <input type="checkbox"/> C. COMMERCIAL INDUSTRIAL <input type="checkbox"/> D. NOT CURRENTLY USED			
02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER			
NAME:		AFFECTED	DISTANCE TO SITE
<u>Rockaway River</u>		<input type="checkbox"/>	<u>0</u> (mi)
<u>Jersey City Reservoir</u>		<input type="checkbox"/>	<u>approximately 13</u> (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN			02 DISTANCE TO NEAREST POPULATION
ONE (1) MILE OF SITE A. _____ NO. OF PERSONS	TWO (2) MILES OF SITE B. _____ NO. OF PERSONS	THREE (3) MILES OF SITE C. <u>27,500</u> NO. OF PERSONS	<u>approximately 150 feet</u>
03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE _____			04 DISTANCE TO NEAREST OFF-SITE BUILDING <u>approximately 150 feet</u>

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, urban, densely populated urban area)

Site is located in an industrial area, but it is immediately adjacent to a residential area of primarily single-family homes. Situated in the Borough of Wharton, population of approximately 5,300 people.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-8} - 10^{-9}$ cm/sec ☐ B. $10^{-6} - 10^{-7}$ cm/sec ☐ C. $10^{-4} - 10^{-5}$ cm/sec ☒ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE
(Less than 10^{-8} cm/sec)
☐ B. RELATIVELY IMPERMEABLE
($10^{-6} - 10^{-7}$ cm/sec)
☐ C. RELATIVELY PERMEABLE
($10^{-5} - 10^{-4}$ cm/sec)
☐ D. VERY PERMEABLE
(Greater than 10^{-3} cm/sec)

03 DEPTH TO BEDROCK

approximately 60 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

(ft)

05 SOIL pH

06 NET PRECIPITATION

12 (in)

07 ONE YEAR 24 HOUR RAINFALL

2.7 (in)

08 SLOPE

SITE SLOPE
3.9 %

DIRECTION OF SITE SLOPE

TERRAIN AVERAGE SLOPE

09 FLOOD POTENTIAL

SITE IS IN _____ YEAR FLOODPLAIN

10

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (in miles)

ESTUARINE

OTHER

A. _____ (mi)

B. _____ (mi)

12 DISTANCE TO CRITICAL HABITAT OF ENDANGERED SPECIES

_____ (mi)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

located in
A. industrial
zone

RESIDENTIAL AREAS, NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

approximately
B. 150 feet

AGRICULTURAL LANDS
PRIME AG LAND

AG LAND

C. _____ (mi) D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Although the facility is located in an Industrial zone, it is also very close to residential areas. The site borders the Rockaway River and is located in a flood plain. The site is located in a flood plain and is generally flat. The surrounding facility is also generally flat.

VII. SOURCES OF INFORMATION (Give specific references, e.g., state files, agency analyses, reports)

NJDEP, Division of Water Resources files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE		No samples collected during inspection of December 12, 1989	
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
	No field measurements taken during inspection of December 12, 1989

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input type="checkbox"/> GROUND <input checked="" type="checkbox"/> AERIAL	02 IN CUSTODY OF NJDEP, DIVISION OF WATER RESOURCES <small>(Name of organization or individual)</small>
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS NJDEP, DIVISION OF WATER RESOURCES

V. OTHER FIELD DATA COLLECTED (Provide sufficient description)

DATA obtained from analytical results of sludge samples, ground water samples, surface water samples (Rockaway River), and samples of solvent floating upon the ground water.

Data also obtained from measurements of ground water elevations, and solvent thickness on ground water surface, Data also obtained from ground water pumping tests.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., memo files, sample analysis, reports)

NJDEP, Division of Water Resources files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

II. IDENTIFICATION

01 STATE 02 SITE NUMBER

III. CURRENT OWNER(S)

PARENT COMPANY (if applicable)

01 NAME <i>L.E. Carreter and Company</i>		02 D+B NUMBER		03 NAME <i>Dayco Corporation</i>		04 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) <i>170 North Main Street</i>		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.) <i>333 West First Street</i>		11 SIC CODE	
05 CITY <i>Wharton</i>		06 STATE 07 ZIP CODE <i>NJ 07805</i>		12 CITY <i>Dayton</i>		13 STATE 14 ZIP CODE <i>OH 45402</i>	
01 NAME		02 D+B NUMBER		03 NAME		04 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		12 CITY		13 STATE 14 ZIP CODE	
01 NAME		02 D+B NUMBER		03 NAME		04 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		12 CITY		13 STATE 14 ZIP CODE	
01 NAME		02 D+B NUMBER		03 NAME		04 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		12 CITY		13 STATE 14 ZIP CODE	

III. PREVIOUS OWNER(S) (List owner history if any)

IV. REALTY OWNER(S) (if applicable: list owner history if any)

01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		05 CITY		06 STATE 07 ZIP CODE	
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		05 CITY		06 STATE 07 ZIP CODE	
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY		06 STATE 07 ZIP CODE		05 CITY		06 STATE 07 ZIP CODE	

V. SOURCES OF INFORMATION (Give specific references, e.g., state files, owner analysis, reports)

NJDEP, Division of Water Resources files



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. CURRENT OPERATOR (Provide if different from owner)

OPERATOR'S PARENT COMPANY (if applicable)

01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
06 CITY		05 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER					

III. PREVIOUS OPERATOR(S) (List each receipt date; provide only if different from owner)

PREVIOUS OPERATORS' PARENT COMPANIES (if applicable)

01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
06 CITY		05 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					

01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
06 CITY		05 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					

01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
06 CITY		05 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					

IV. SOURCES OF INFORMATION (List specific references, e.g., 2000 Dec. Census, company records)

--	--	--	--	--	--	--	--



01 STATE	02 SITE NUMBER
----------	----------------

01 NAME		02 D+S NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		
05 CITY		06 STATE 07 ZIP CODE		

01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	
06 CITY		06 STATE	07 ZIP CODE		06 CITY		06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	
06 CITY		06 STATE	07 ZIP CODE		06 CITY		06 STATE	07 ZIP CODE

01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE	
01 NAME			02 D+B NUMBER		01 NAME			02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE	

100



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

II. PAST RESPONSE ACTIVITIES

01 <input type="checkbox"/> A. WATER SUPPLY CLOSED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> D. SPILLED MATERIAL REMOVED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input checked="" type="checkbox"/> E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION	02 DATE <u>April & May, 1982</u>	03 AGENCY <u>USEP, DIVISION OF WATER RESOURCES</u>
01 <input type="checkbox"/> F. WASTE REPACKAGED 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input checked="" type="checkbox"/> G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION <u>approximately 7,000 yd³ of sludge removed from site</u>	02 DATE <u>April & May, 1982</u>	03 AGENCY <u>USEP, DIVISION OF WATER RESOURCES</u>
01 <input type="checkbox"/> H. ON SITE BURIAL 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> L. ENCAPSULATION 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> N. CUTOFF WALLS 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> O. EMERGENCY DRAINING/SURFACE WATER DIVERSION 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION	02 DATE _____	03 AGENCY _____
01 <input type="checkbox"/> Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION	02 DATE _____	03 AGENCY _____



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE 02 SITE NUMBER

II. FAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ S. CAPPING/COVERING
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ T. BULK TANKAGE REPAIRED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ U. GROUT CURTAIN CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ V. BOTTOM SEALED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ W. GAS CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ X. FIRE CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Y. LEACHATE TREATMENT
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Z. AREA EVACUATED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 1. ACCESS TO SITE RESTRICTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 2. POPULATION RELOCATED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 3. OTHER REMEDIAL ACTIVITIES
04 DESCRIPTION

02 DATE

03 AGENCY

L.E. Carpenter and Company is currently removing solvents floating upon the surface of the ground water. However, the NJDEP believes that the company is proceeding with the removal of the solvents in a manner inadequate to properly cleanup the entire site and L.E. Carpenter must install an alternate solvent recovery system. Please refer to page 19 for more information concerning this matter.

III. SOURCES OF INFORMATION (Cite specific references, e.g., field logs, survey drawings, reports)

NJDEP, DIVISION OF water resources files.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

D1 STATE D2 SITE NUMBER

II. ENFORCEMENT INFORMATION

D1 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

D2 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

On January 29, 1982 L.E. Carpenter and the NJDEP entered into an Administrative Consent Order (ACO) which required L.E. Carpenter to remove waste sludge from the impoundment. The ACO also required L.E. Carpenter to fully delineate the pollutant plume in the ground water, to remove the solvents floating upon the ground water surface and to decontaminate the ground water to a concentration of 100 parts per billion of total volatile organic chemicals.

In April 1982 and May 1982 L.E. Carpenter removed to an offsite location in Pennsylvania over 4,000 cubic yards of sludge from the impoundment and associated contaminated soils. L.E. Carpenter has begun removing the solvents floating upon the ground water surface by using an Autoskimmer.

However the NJDEP questions the applicability of using an Autoskimmer at this site. The NJDEP believes that a significant portion of the solvent plume remains unaffected by the autoskimmer and the NJDEP questions the applicability of the autoskimmer at this site. In letters dated October 10, 1984, December 6, 1984 and December 21, 1984, as well as during a meeting held on December 11, 1984, the NJDEP informed L.E. Carpenter of these concerns and directed L.E. Carpenter to revamp the groundwater decontamination system. However, to date L.E. Carpenter has not satisfactorily responded to these concerns. The NJDEP believes that if L.E. Carpenter continues its present course of action, the site will not be properly cleaned up.

III. SOURCES OF INFORMATION (cite specific references, e.g., state files, airport analysis, reports)

Appendix A

Wells[#] 1-4 are downgradient wells
well #5 is an upgradient well

Chem-25
Sept. 75

Attachment #1

JERSEY STATE DEPARTMENT OF HEALTH
STREAM OR WASTEWATER ANALYSIS

Time & Date Received
By Labs

Lab. No.

FIELD INFORMATION

PLEASE TYPE OR PRINT
WITH BALLPOINT PEN

NOV 3 8 47 AM '80
NJ DEPT OF HEALTH
DIV WAT RES

Date of Collection 8-18 1980
Hour 1:15 A.M. ✓ P.M.

Sample No. C04975

Composite Period GRAB Interval

Municipality Wharton

Collected by CUNNINGHAM

Plant LE Carpenter

Residual Chlorine:
Immediate

Stream

Developed

Location N. Main St.

Flow Rate

Description and Remarks: Sludge Sample - Sludge lagoon
(inactive waste impoundment)

Temperature

ITEMS CIRCLED BELOW ARE UNSATISFACTORY

Dilutions Requested
(Bacteriological)

10	1	10 ⁻¹	10 ⁻²	10 ⁻³	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶

LABORATORY RESULTS
BACTERIOLOGICAL

Coliform MPN/100 ml. (Confirmed Test); Fecal Coliform MPN/100 ml.

Fecal Streptococci: MPN/100 ml. Other

m,p xylene 50000 L

o xylene 50000 L

STYRENE 50000 L

NONANE 50000 L

CUMENE 50000 L

OCT 30 1980

CHEMICAL AND PHYSICAL ANALYSES (mgs./liter, unless otherwise noted)

REPORT SUBMITTED
DIV. OF LABORATORIES & EPID.

Color (units)	Chloride	Sulfate	Other Determinations
Odor (cold)	Suspended Solids	Grease & Oil	antimony 21.450
Turbidity (units)	Ash	Cyanide	boron
pH	Total Solids	Chromium Total	titanium 0.200 K
Acidity to pH 4	Ash	Chromium Hex.	tin 0.100 K
Alkalinity to pH 4	Total PO ₄	Ortho - PO ₄	barium 14.8
Nitrite N	MBAS	Copper 0.965	silver 0.010 K
Nitrate N	Phenols	Lead 124.65	nickel 1.259
Ammonia N	COD	Arsenic 0.005 K	VO SCAN PDB
Total Kjel. N	Iron	Zinc 328.13	chloroform 203
			benzene 79

1,1,2 trichloroethane 102
tribromochloromethane 3703
mesitylene 3940

p-cymene 35774
butyl benzene 11650

heptane 63
Toluene 4526
OCTANE 208
Trichloroethylene 48

BIOCHEMICAL OXYGEN DEMAND (mgs./liter)

Field D.O.		Lab. D.O.			Seed Required:			Yes					No	
Sample Conc. %	PLEASE CIRCLE	0.1	0.2	0.5	1.0	2.0	5.0	10	25	50	75	100		
BOD ₅														

Attachment #

JERSEY STATE DEPARTMENT OF HEALTH
DIVISION OF WATER RESOURCES
STREAM OR WASTE WATER ANALYSIS

Time & Date Received
By Labs
Lab. No.

FIELD INFORMATION

PLEASE TYPE OR PRINT
WITH BALLPOINT PEN

Sample No. C07448

Municipality Wharton

Plant LE Carpenter

Stream _____

Location N. Main St.

Description and Remarks: Well #3 at mid-depth

Date of Collection 8-18 1982

Hour 12:05 A.M. _____ P.M. ✓

Composite Period GRAB Interval _____

Collected by CUNNINGHAM, MENNEL

Residual Chlorine: _____

Immediate _____

Developed _____

Flow Rate _____

Temperature _____

ITEMS CIRCLED BELOW ARE UNSATISFACTORY

Dilutions Requested
(Bacteriological)

10	1	10 ⁻¹	10 ⁻²	10 ⁻³	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶

LABORATORY RESULTS
BACTERIOLOGICAL

Coliform MPN/100 ml. _____ (Confirmed Test); Fecal Coliform MPN/100 ml. _____

Fecal Streptococci: MPN/100 ml. _____ Other _____

ND = NON-DETECTABLE; I. E. BELOW

DETECTABLE LIMITS AS SHOWN IN 4.

OCT 30 1980

CHEMICAL AND PHYSICAL ANALYSES (mgs./liter, unless otherwise noted) REPORT SUBMITTED
DIV. OF LABORATORIES & EPID.

Color (units)	✓ Chloride <u>33</u>	Sulfate	Other Determinations <u>412</u>
Odor (cold)	✓ Suspended Solids <u>19</u>	✓ Grease & Oil <u>9.9</u>	Specific Conductance
Turbidity (units)	Ash	Cyanide	<u>TOC 39.9</u>
pH	✓ Total Solids <u>272</u>	✓ Chromium Total <u>0.015 K</u>	antimony <u>0.133</u>
Acidity to pH 4	Ash	Chromium Hex.	boron
Alkalinity to pH 4	✓ Total PO ₄ <u>1.1</u>	Ortho - PO ₄	titanium <u>0.200 K</u>
Nitrite N	MBAS	✓ Copper <u>0.010 K</u>	tin <u>0.070 K</u> ✓ barium <u>0.050</u>
Nitrate N	✓ Phenols <u>0.122</u>	✓ Lead <u>0.005 K</u>	Silver <u>0.005 K</u>
Ammonia N	COD	✓ Arsenic <u>0.005</u>	Nickel <u>0.025</u>
Total Kj. N	Iron	✓ Zinc <u>0.658</u>	VO Scan <u>ppb</u>

decane 18 chlorobenzene 5.9
p-cymene 12 m,p xylene 8727
butyl benzene 3.9 o-xylene 1697
BIOCHEMICAL OXYGEN DEMAND (mgs./liter)

toluene 69
nonane 71
cumene 9.9
mesitylene 30

Field D.O.		Lab. D.O.			Seed Required:									
Sample Conc. %		PLEASE CIRCLE		0.1	0.2	0.5	1.0	2.0	5.0	10	25	50	75	100
BOD ₅														

JERSEY STATE DEPARTMENT OF HEALTH
STREAM OR WASTEWATER ANALYSIS

Time & Date Received _____
By Labs _____
Lab. No. _____

FIELD INFORMATION

PLEASE TYPE OR PRINT
WITH BALLPOINT PEN

Sample No. C07446

Municipality Wharton

Plant LE Carpenter

Stream _____

Location N. Main St.

Description and Remarks: _____

Date of Collection 8-18 1980
Hour 11:55 A.M. ☒ P.M. ☐

Composite Period GRAB Interval _____

Collected by CUNNINGHAM, MEANEL, MILLE

Residual Chlorine: Immediate _____

Developed _____

Flow Rate _____

Temperature _____

Well #3 at top of water column
Waste Sample, concentrated
solvent

ITEMS CIRCLED BELOW ARE UNSATISFACTORY

Dilutions Requested
(Bacteriological)

10	1	10 ⁻¹	10 ⁻²	10 ⁻³	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶

LABORATORY RESULTS
BACTERIOLOGICAL

Coliform MPN/100 ml. _____ (Confirmed Test); Fecal Coliform MPN/100 ml. _____

Fecal Streptococci: MPN/100 ml. _____ Other _____

OCT 30 1980

CHEMICAL AND PHYSICAL ANALYSES (mgs./liter, unless otherwise noted)

Color (units)	Chloride	Sulfate	Other Determinations
Odor (cold)	Suspended Solids	Grease & Oil	
Turbidity (units)	Ash	Cyanide	
pH	Total Solids	Chromium Total	
Acidity to pH 4	Ash	Chromium Hex.	
Alkalinity to pH 4	Total PO ₄	Ortho - PO ₄	
Nitrite N	MBAS	Copper	
Nitrate N	Phenols	Lead	
Ammonia N	COD	Arsenic	
Total Kj. N	Iron	Zinc	

benzene
toluene
m, p xylene
o-xylene
styrene
nonane
cumene
decane
mesitylene
butyl benzene

BIOCHEMICAL OXYGEN DEMAND (mgs./liter)

Field D.O.	Lab. D.O.	Seed Required:	Yes	No
Sample Conc. %	PLEASE CIRCLE	0.1 0.2 0.5 1.0 2.0 5.0 10 25 50 75 100		
BOD ₅				

Chem-25
Sept. 75

Attachment 2

JERSEY STATE DEPARTMENT OF HEALTH
STREAM OR WASTEWATER ANALYSIS

Time & Date Received _____
By Labs _____
Lab. No. _____

PLEASE TYPE OR PRINT
WITH BALLPOINT PEN

NOV 3 8
FIELD INFORMATION
NJ DEPT OF HEALTH
DIV WATER RESOURCES
MS&E

Date of Collection 8-18 19 8
Hour 12:50 A.M. ✓ P.M. ✓

Composite Period _____ Interval _____

Collected by Cunningham, Mennel, Miller
Residual Chlorine: _____

Immediate _____

Developed _____

Flow Rate _____

Temperature _____

Sample No. C04973

Municipality Wharton

Plant LE Carpenter

Stream _____

Location N. Main St.

Description and Remarks: Well #4 at mid-depth

ITEMS CIRCLED BELOW ARE UNSATISFACTORY

Dilutions Requested
(Bacteriological)

10	1	10-1	10-2	10-3	10-4	10-5	10-6

LABORATORY RESULTS
BACTERIOLOGICAL

Coliform MPN/100 ml. _____ (Confirmed Test); Fecal Coliform MPN/100 ml. _____

Fecal Streptococci: MPN/100 ml. _____ Other _____

ND = NON-DETECTABLE; I. E. BELOW
DETECTABLE LIMITS RECORDED

OCT 30 1980

CHEMICAL AND PHYSICAL ANALYSES (mgs./liter, unless otherwise noted)

REPORT SUBMITTED
DIV. OF LABORATORIES & EQ.

Color (units)	✓ Chloride	26	Sulfate		Other Determinations	39
Odor (cold)	✓ Suspended Solids	66	✓ Grease & Oil	5.6	Specific conductance	
Turbidity (units)	Ash		Cyanide		TOC	14.4 J
pH	✓ Total Solids	318	✓ Chromium Total	0.015 K	antimony	0.133
Acidity to pH 4	Ash		Chromium Hex.		barium	
Alkalinity to pH 4	✓ Total PO ₄	0.39	Ortho - PO ₄		titanium	0.200 K
Nitrite N	MBAS		✓ Copper	0.010 K	tin	0.097 barium
Nitrate N	✓ Phenols	0.073	✓ Lead	0.005 K	silver	0.005 K
Ammonia N	COD		✓ Arsenic	0.009	nickel	0.025
Total Kjell. N	Iron		✓ Zinc	1.225	VO Scan	ppb

1,2 dichloroethane 40 tetrachloroethylene 38 o-xylene 1112
trichloroethylene 19 chlorobenzene 12 nonane 57
toluene 13 m,p xylene 5521 cumene 12
BIOCHEMICAL OXYGEN DEMAND (mgs./liter) p-cymene 8,2

Field D.O.		Lab. D.O.			Seed Required:			Yes		No		
Sample Conc. %	PLEASE CIRCLE	0.1	0.2	0.5	1.0	2.0	5.0	10	25	50	75	100
BOD ₅												

Chem-25
Sept. 75

JERSEY STATE DEPARTMENT OF HEALTH
STREAM OR WASTEWATER ANALYSIS

Time & Date Received _____
By Labs _____
Lab. No. _____

FIELD INFORMATION

PLEASE TYPE OR PRINT
WITH BALLPOINT PEN

Sample No. C04971

Municipality Wharton

Plant LE Carpenter

Stream _____

Location N. Main St.

Description and Remarks: Well #4 at top of water column

Waste Sample, concentrated solution

Date of Collection 8-18 1980

Hour 12:40 A.M. _____ P.M. ✓

Composite Period GRAB Interval _____

Collected by CUNNINGHAM, MENNEL, MIL

Residual Chlorine: _____
Immediate _____

Developed _____

Flow Rate _____

Temperature _____

ITEMS CIRCLED BELOW ARE UNSATISFACTORY

Dilutions Requested
(Bacteriological)

10	1	10 ⁻¹	10 ⁻²	10 ⁻³	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶

LABORATORY RESULTS
BACTERIOLOGICAL

Coliform MPN/100 ml. _____ (Confirmed Test); Fecal Coliform MPN/100 ml. _____

Fecal Streptococci: MPN/100 ml. _____ Other _____

CHEMICAL AND PHYSICAL ANALYSES (mgs./liter, unless otherwise noted)

Color (units)	Chloride	Sulfate	Other Determinations
Odor (cold)	Suspended Solids	Grease & Oil	<u>NO Scan pph</u>
Turbidity (units)	Ash	Cyanide	<u>methylene chloride 50000</u>
pH	Total Solids	Chromium Total	<u>1,2-dichloroethane 50000</u>
Acidity to pH 4	Ash	Chromium Hex.	<u>Heptane 50000</u>
Alkalinity to pH 4	Total PO ₄	Ortho - PO ₄	<u>1,1,2-trichloroethane 50000</u>
Nitrite N	MBAS	Copper	<u>dibromochloro methane 50000</u>
Nitrate N	Phenols	Lead	<u>tetrachloroethylene 50000</u>
Ammonia N	COD	Arsenic	<u>propyl benzene 50000</u>
Total Kj. N	Iron	Zinc	<u>p-cymene 50000</u>

ND = NOT DETECTED, I.E. BELOW
DETECTABLE LIMITS RE METHOD # 4

BIOCHEMICAL OXYGEN DEMAND (mgs./liter)

Field D.O.		Lab. D.O.			Seed Required:					Yes		NO		30 1980	
Sample Conc. %	PLEASE CIRCLE	0.1	0.2	0.5	1.0	2.0	5.0	10	25	50	75	100	REPORT SUBMITTED		
BOD ₅													DIV. OF LABORATORIES		

OCT 30 1980

REPORT SUBMITTED
BY: OF LABORATORIES



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1150 ROUTE 10, RANDOLPH NEW JERSEY 07869 201-584-0330

REPORT DATE: November 6, 1984

LAB # 35270-A of AB

SAMPLE SOURCE: GEO ENGINEERING

SAMPLE ID: MONITORING WELL #1

SAMPLE DATE: 10/22/84

TAKEN BY: GEO ENG. AT LAB DATE: 10/22/84

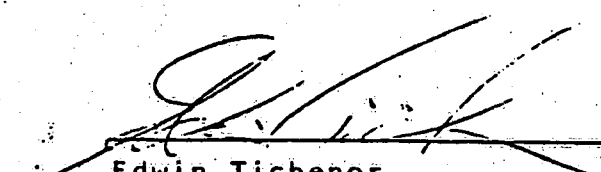
<u>Parameter</u>	<u>Result</u>
BUTYL BENZENE-----	<u>N/D</u>
CUMENE-----	<u>"</u>
DECANE-----	<u>"</u>
MESITYLENE (1,3,5 TRIMETHYLBENZENE)-----	<u>"</u>
STYRENE-----	<u>"</u>

None of the above parameter detected at a sensitivity of 5 mg/l

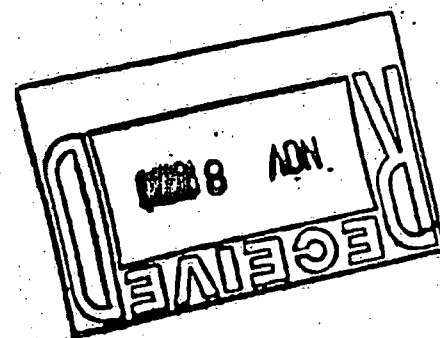
LT=Less than

ND=Nothing Detected

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor
Vice President

ET/jmg
encl.





INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1545 ROUTE 10 RANDOLPH NEW JERSEY 07069 201-584-0330

State Certified drinking water/wastewater Laboratory
ID #14116

REPORT DATE: October 31, 1984

LAB # 35270 - B of AB

VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY

SAMPLE SOURCE: GEO ENGINEERING SAMPLE ID _____ MONITORING WELL # 1
SAMPLE DATE: 10/22/84 TAKEN BY: GEO ENG. AT LAB DATE: 10/22/84

Compounds detected in parts per billion (micrograms/liter)

CHLOROMETHANE.....	_____	1,2-DICHLOROPROPANE.....	_____
BROMOMETHANE.....	_____	c-1,3-DICHLOROPROPENE*.....	_____
DICHLORODIFLUOROMETHANE.....	_____	t-1,3-DICHLOROPROPENE*.....	_____
VINYL CHLORIDE.....	_____	TCE (TRICHLOROETHYLENE).....	_____
CHLOROETHANE.....	_____	1,1,2-TRICHLOROETHANE*.....	_____
METHYLENE CHLORIDE.....	_____	DIBROMOCHLOROMETHANE*.....	_____
ACETONE.....	_____	BENZENE.....	_____
TRICHLOROFLUOROMETHANE.....	_____	DIISOPROPYL ETHER.....	_____
1,1-DICHLOROETHYLENE.....	_____	2-CHLOROETHYL VINYL ETHER.....	_____
1,1-DICHLOROETHANE**.....	_____	BROMOFORM.....	_____
t-1,2-DICHLOROETHYLENE.....	_____	1,1,2,2-TETRACHLOROETHANE.....	_____
CHLOROFORM.....	_____	PCE (TETRACHLOROETHYLENE).....	_____
FREON 113.....	_____	TOLUENE.....	_____
1,2-DICHLOROETHANE.....	_____	CHLOROBENZENE.....	_____
t-BUTYL METHYL ETHER.....	_____	ETHYLBENZENE.....	<u>12,277</u>
1,1,1-TRICHLOROETHANE.....	_____	M-XYLENE.....	<u>58,788</u>
CARBON TETRACHLORIDE.....	_____	O-XYLENE.....	<u>37,332</u>
BROMODICHLOROMETHANE.....	_____	P-XYLENE.....	_____

For the above listed volatile pollutants, nothing detected at 1 ppb sensitivity level.

Unknown peaks detected (Retention time, estimated amount) _____

LT=Less than, GT=Greater than, ND=Not detected
*Compounds elute together. Could be either material.

** Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

NOTE: Compound identification is based upon retention time matches with specific known standards. Confirmatory analysis using GC/MS is required to positively identify any materials and/or amount detected.



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10 RANDOLPH NEW JERSEY 07869 201-584-0330

REPORT DATE: November 6, 1984

LAB # 35271-A of AB

SAMPLE SOURCE: GEO ENGINEERING

SAMPLE ID: MONITORING WELL #2

SAMPLE DATE: 10/22/84

TAKEN BY: GEO ENG. AT LAB DATE: 10/22/84

<u>Parameter</u>	<u>Result</u>
BUTYL BENZENE-----	N/D
CUMENE-----	"
DECANE-----	"
MESITYLENE (1,3,5 TRIMETHYLBENZENE)-----	"
STYRENE-----	"

None of the above parameter detected at a sensitivity of 1 mg/l

LT=Less than

ND=Nothing Detected

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor
Vice President

ET/jmg
encl.



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10 BANCROFT NEW JERSEY 07001 201 584-2330

State Certified drinking water/wastewater Laboratory
ID #14116

REPORT DATE: October 31, 1984

LAB # 35271 - B of AB

VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY

SAMPLE SOURCE: GEO ENGINEERING SAMPLE ID MONITORING WELL # 2
SAMPLE DATE: 10/22/84 TAKEN BY: GEO ENG. AT LAB DATE: 10/22/84

Compounds detected in parts per billion (micrograms/liter)

CHLOROMETHANE.....	_____	1,2-DICHLOROPROPANE.....	_____
BROMOMETHANE.....	_____	c-1,3-DICHLOROPROPENE*.....	_____
DICHLORODIFLUOROMETHANE.....	_____	t-1,3-DICHLOROPROPENE*.....	_____
VINYL CHLORIDE.....	_____	TCE (TRICHLOROETHYLENE).....	_____
CHLOROETHANE.....	_____	1,1,2-TRICHLOROETHANE*.....	_____
METHYLENE CHLORIDE.....	_____	DIBROMOCHLOROMETHANE*.....	_____
ACETONE.....	_____	BENZENE.....	_____
TRICHLOROFLUOROMETHANE.....	_____	DIISOPROPYL ETHER.....	_____
1,1-DICHLOROETHYLENE.....	_____	2-CHLOROETHYL VINYL ETHER.....	_____
1,1-DICHLOROETHANE**.....	_____	BROMOFORM.....	_____
t-1,2-DICHLOROETHYLENE.....	_____	1,1,2,2-TETRACHLOROETHANE.....	_____
CHLOROFORM.....	_____	PCE (TETRACHLOROETHYLENE).....	_____
FREON 113.....	_____	TOLUENE.....	_____
1,2-DICHLOROETHANE.....	_____	CHLOROBENZENE.....	_____
t-BUTYL METHYL ETHER.....	_____	ETHYLBENZENE.....	<u>2,398</u>
1,1,1-TRICHLOROETHANE.....	_____	M-XYLENE.....	<u>17,152</u>
CARBON TETRACHLORIDE.....	_____	O-XYLENE.....	<u>6,111</u>
BROMODICHLOROMETHANE.....	_____	P-XYLENE.....	_____

For the above listed volatile pollutants, nothing detected at 1 ppb sensitivity level.

Unknown peaks detected (Retention time, estimated amount) _____

LT=Less than, GT=Greater than, ND=Not detected
*Compounds elute together. Could be either material.

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

NOTE: Compound identification is based upon retention time matches with specific known standards. Confirmatory analysis using GC/MS is required to positively identify any materials and/or amount detected.



**INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED**

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

REPORT DATE: November 6, 1984

LAB # 35272-A of AB

SAMPLE SOURCE: GEO ENGINEERING

SAMPLE ID: MONITORING WELL #3

SAMPLE DATE: 10/22/84

TAKEN BY: GEO ENG. AT LAB DATE: 10/22/


<u>Parameter</u>	<u>Result</u>
BUTYL BENZENE-----	N/D
CUMENE-----	"
DECANE-----	"
MESITYLENE (1,3,5 TRIMETHYLBENZENE)-----	"
STYRENE-----	"

None of the above parameter detected at a sensitivity of 1 mg/l

LT=Less than

ND=Nothing Detected

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor
Vice President

ET/jmg
encl.



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10 RANDOLPH NEW JERSEY 07049 201 584-0330

State Certified drinking water/wastewater Laboratory
ID #14116

REPORT DATE: October 31, 1984

LAB #35272 - B of AB

VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY

SAMPLE SOURCE: GEO ENGINEERING

SAMPLE ID MONITORING WELL #3

SAMPLE DATE: 10/22/84

TAKEN BY: GEO ENG.

AT LAB DATE: 10/22/84

Compounds detected in parts per billion (micrograms/liter)

CHLOROMETHANE.....	_____
BROMOMETHANE.....	_____
DICHLORODIFLUOROMETHANE.....	_____
VINYL CHLORIDE.....	_____
CHLOROETHANE.....	_____
METHYLENE CHLORIDE.....	_____
ACETONE.....	_____
TRICHLOROFLUOROMETHANE.....	_____
1,1-DICHLOROETHYLENE.....	_____
1,1-DICHLOROETHANE**.....	_____
±-1,2-DICHLOROETHYLENE.....	_____
CHLOROFORM.....	_____
FREON 113.....	_____
1,2-DICHLOROETHANE.....	_____
t-BUTYL METHYL ETHER.....	_____
1,1,1-TRICHLOROETHANE.....	_____
CARBON TETRACHLORIDE.....	_____
BROMODICHLOROMETHANE.....	_____

1,2-DICHLOROPROPANE.....	_____
c-1,3-DICHLOROPROPENE*.....	_____
±-1,3-DICHLOROPROPENE*.....	_____
TCE (TRICHLOROETHYLENE).....	_____
1,1,2-TRICHLOROETHANE*.....	_____
DIBROMOCHLOROMETHANE*.....	_____
BENZENE.....	_____
DIISOPROPYL ETHER.....	_____
2-CHLOROETHYL VINYL ETHER.....	_____
BROMOFORM.....	_____
1,1,2,2-TETRACHLOROETHANE.....	_____
PCE (TETRACHLOROETHYLENE).....	_____
TOLUENE.....	_____
CHLOROBENZENE.....	_____
ETHYLBENZENE.....	<u>6,040</u>
M-XYLENE.....	<u>41,100</u>
O-XYLENE.....	<u>20,190</u>
P-XYLENE.....	_____

For the above listed volatile pollutants, nothing detected at 1 ppb sensitivity level.

Unknown peaks detected (Retention time, estimated amount) _____

LT=Less than, GT=Greater than, ND=Not detected

*Compounds elute together. Could be either material.

** Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

NOTE: Compound identification is based upon retention time matches with specific known standards. Confirmatory analysis using GC/MS is required to positively identify any materials and/or amount detected.



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10 RANDOLPH, NEW JERSEY 07869 201-584-0330

REPORT DATE: November 6, 1984

LAB # 35273-A of AB

SAMPLE SOURCE: GEO ENGINEERING

SAMPLE ID: MONITORING WELL # 4

SAMPLE DATE: 10/22/84

TAKEN BY: GEO ENG. AT LAB DATE: 10/22/84

<u>Parameter</u>	<u>Result</u>
BUTYL BENZENE-----	N/D
CUMENE-----	"
DECANE-----	"
MESITYLENE (1,3,5 TRIMETHYLBENZENE)-----	"
STYRENE-----	"

None of the above parameter detected at a sensitivity of 1 mg/l

LT=Less than

ND=Nothing Detected

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor
Vice President

ET/jmg
encl.



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1552 ROUTE 10 RANDOLPH NEW JERSEY 07069 201-584-0330

State Certified drinking water/wastewater Laboratory
ID #14116

REPORT DATE: October 31, 1984

LAB #35273 - B of AB

VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY

SAMPLE SOURCE: GEO ENGINEERING SAMPLE ID: MONITORING WELL #4
SAMPLE DATE: 10/22/84 TAKEN BY: GEO ENG. AT LAB DATE: 10/22/84

Compounds detected in parts per billion (micrograms/liter)

CHLOROMETHANE.....	_____	1,2-DICHLOROPROPANE.....	_____
BROMOMETHANE.....	_____	c-1,3-DICHLOROPROPENE*.....	_____
DICHLORODIFLUOROMETHANE.....	_____	t-1,3-DICHLOROPROPENE*.....	_____
VINYL CHLORIDE.....	_____	TCE (TRICHLOROETHYLENE).....	_____
CHLOROETHANE.....	_____	1,1,2-TRICHLOROETHANE*.....	_____
METHYLENE CHLORIDE.....	_____	DIBROMOCHLOROMETHANE*.....	_____
ACETONE.....	_____	BENZENE.....	_____
TRICHLOROFLUOROMETHANE.....	_____	DIISOPROPYL ETHER.....	_____
1,1-DICHLOROETHYLENE.....	_____	2-CHLOROETHYL VINYL ETHER.....	_____
1,1-DICHLOROETHANE**.....	_____	BROMOFORM.....	_____
t-1,2-DICHLOROETHYLENE.....	_____	1,1,2,2-TETRACHLOROETHANE.....	_____
CHLOROFORM.....	_____	PCE (TETRACHLOROETHYLENE).....	_____
FREON 113.....	_____	TOLUENE.....	_____
1,2-DICHLOROETHANE.....	_____	CHLOROBENZENE.....	_____
t-BUTYL METHYL ETHER.....	_____	ETHYLBENZENE.....	<u>511</u>
1,1,1-TRICHLOROETHANE.....	_____	M-XYLENE.....	<u>5,000</u>
CARBON TETRACHLORIDE.....	_____	O-XYLENE.....	<u>2,145</u>
BROMODICHLOROMETHANE.....	_____	P-XYLENE.....	_____

For the above listed volatile pollutants, nothing detected at 1 ppb sensitivity level.

Unknown peaks detected (Retention time, estimated amount) _____

LT=Less than, GT=Greater than, ND=Not detected

*Compounds elute together. Could be either material.

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

NOTE: Compound identification is based upon retention time matches with specific known standards. Confirmatory analysis using GC/MS is required to positively identify any materials and/or amount detected.



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, RANDOLPH, NEW JERSEY 07869 201-584-0330

REPORT DATE: November 6, 1984

LAB # 35274-A of AB

SAMPLE SOURCE: GEO ENGINEERING

SAMPLE ID: MONITORING WELL #5

SAMPLE DATE: 10/22/84

TAKEN BY: GEO ENG. AT LAB DATE: 10/22/84

<u>Parameter</u>	<u>Result</u>
BUTYL BENZENE-----	N/D
CUMENE-----	"
DECANE-----	"
MESITYLENE (1,3,5 TRIMETHYLBENZENE)-----	"
STYRENE-----	"

None of the above parameter detected at a sensitivity of 1 mg/l

LT=Less than

ND=Nothing Detected

INDUSTRIAL CORROSION MGMT., INC.


Edwin Tichenor
Vice President

ET/jmg
encl.



INDUSTRIAL
CORROSION
MANAGEMENT
INCORPORATED

1152 ROUTE 10, HANCOCK, NEW JERSEY 07846 201-584-0330

State Certified drinking water/wastewater Labo dry
ID #14116

REPORT DATE: October 31, 1984

LAB # 35274- B of AB

VOLATILE ORGANICS BY PURGE AND TRAP
GAS CHROMATOGRAPHY

SAMPLE SOURCE: GEO ENGINEERING SAMPLE ID MONITORING WELL #5
SAMPLE DATE: 10/22/84 TAKEN BY: GEO ENG. AT LAB DATE: 10/22/84

Compounds detected in parts per billion (micrograms/liter)

CHLOROMETHANE.....	_____
BROMOMETHANE.....	_____
DICHLORODIFLUOROMETHANE.....	_____
VINYL CHLORIDE.....	_____
CHLOROETHANE.....	_____
METHYLENE CHLORIDE.....	_____
ACETONE.....	_____
TRICHLOROFLUOROMETHANE.....	_____
1,1-DICHLOROETHYLENE.....	_____
1,1-DICHLOROETHANE**.....	_____
t-1,2-DICHLOROETHYLENE.....	_____
CHLOROFORM.....	_____
FREON 113.....	_____
1,2-DICHLOROETHANE.....	_____
t-BUTYL METHYL ETHER.....	_____
1,1,1-TRICHLOROETHANE.....	_____
CARBON TETRACHLORIDE.....	_____
BROMODICHLOROMETHANE.....	_____

1,2-DICHLOROPROPANE.....	_____
c-1,3-DICHLOROPROPENE*.....	_____
t-1,3-DICHLOROPROPENE*.....	_____
TCE (TRICHLOROETHYLENE).....	_____
1,1,2-TRICHLOROETHANE*.....	_____
DIBROMOCHLOROMETHANE*.....	_____
BENZENE.....	_____
DIISOPROPYL ETHER.....	_____
2-CHLOROETHYL VINYL ETHER.....	_____
BROMOFORM.....	_____
1,1,2,2-TETRACHLOROETHANE.....	_____
PCE (TETRACHLOROETHYLENE).....	_____
TOLUENE.....	_____
CHLOROBENZENE.....	_____
ETHYLBENZENE.....	_____
M-XYLENE.....	_____
O-XYLENE.....	_____
P-XYLENE.....	_____

X For the above listed volatile pollutants, nothing detected at 1 ppb sensitivity level.

Unknown peaks detected (Retention time, estimated amount) _____

LT=Less than, GT=Greater than, ND=Not detected
*Compounds elute together. Could be either material.

**Tetrahydrofuran & Phosgene also elute at this point. Numerical results are calculated for 1,1-Dichloroethane only.

NOTE: Compound Identification is based upon retention time matches with specific known standards. Confirmatory analysis using GC/MS is required to positively identify any materials and/or amount detected.

Appendix B

Vicrtex®
LE CARPENTER
AND COMPANY



A DAYCO COMPANY

WHARTON, NEW JERSEY 07885

General File
L.E. Carpenter
Wharton

GL } *initial &*
Alhoff } *commen*
original sent to file

RECEIVED

OCT 18 9 45 AM '82

TELEPHONE 201-366-2020 - CABLE CARPENCO

NJ DIV WATER RESOURCES
October 13, 1982
MS&E

Mr. Joseph M. Mikulka
Chief, Region IV
Enforcement & Regulatory Services
Division of Water Resources
CN-024
Trenton, New Jersey 08625

RE: In the matter of L.E. Carpenter & Company
Administrative Consent Order.

Dear Mr. Mikulka:

The following is L.E. Carpenter's assessment of how much waste plastisol remains at the L.E. Carpenter site located at 170 N. Main Street, Wharton, N. J. Included are the characteristics of such remaining material, potential hazard, and the basis for such an assessment.

FINDINGS

(1) Excavation of the impoundment area required soil removal to a depth twice as great as estimated (8 to 12 feet) and 50% larger in area (approximately 11,000 sq. ft.) than projected by initial investigation from Wehran Engineering. This, in main part, was due to trench overflow and continued contact of soil by liquids emanating from buried drums which were ruptured during the removal process.

(2) Based on a visual examination of the materials recovered from the impoundment, approximately 85-90% appeared to be soil. The majority of drums which were found stacked along the containment wall area of the tank farm contained liquid plastisol and solvent.

(3) At the conclusion of the excavation, no drums or liquid plastisol waste areas were observed and the soil for the most part appeared to partially contain a dry clay like plastisol in a sporadic narrow and shallow vein so as to indicate fringe areas where previous overflow may have occurred. These areas apparently were covered by soil subsequent to plastisol overflow. Probing of these fringe areas was performed when the excavation had reached the point that it became apparent the bulk of waste plastisol was removed and only non liquid crumbly or clay like remnants remained.

(1)

Mr. Joseph M. Mikulka -

10/13/82...

It was estimated that the residue would not represent more than 2 - 3% of the total waste in the impoundment, based on the sporadic shallow nature of the remaining material and the fact that approximately 6,000 sq. ft. at a depth of 3 or 4 feet remained in question. Removal of said material would possibly require the excavation of an additional 900 cu. yd. and probably add 20-30% to the total cost of excavation.

(4) Excavation had shown the solid waste to be above the ground water table.

L.E. Carpenter feels that it should be given some consideration in its request for employing a cost benefit principle on any remaining residue. Wehran Engineering's original study indicated no significant waste areas outside the impoundment site already excavated. Further investigation of the site was done on October 19, 1981 when Wehran Engineering excavated four exploratory backhoe test pits concurrently with the installation of monitoring well #5. As is mentioned in Wehran's report, these pits were located on a line parallel to the Rockaway River and at approximately 70 foot intervals between monitoring wells #3 and #4. Observation of the soil stratification in these pits showed no evidence of a plastisol waste. L.E. Carpenter has excavated and disposed of 3500 cu. yd. (three times original estimates) of plastisol waste and soil at a cost of approximately \$1,000,000.

One of DEP's initial concerns was that the bulk of the contamination could "break loose" and find its way to the Boonton Reservoir. This concern should now be alleviated since not only the bulk of the material has been removed, but the quality of the remaining material in the ground shows it to be solid in nature and not amenable to movement.

L.E. Carpenter feels that the ground water quality question should now be addressed as outlined in the Administrative Consent Order.

Very truly yours,

L.E. CARPENTER & COMPANY



Frank Aron
Technical Director

FCA:AMR

PROPOSED
GROUNDWATER DECONTAMINATION
PROGRAM

for

L. E. CARPENTER AND COMPANY
WHARTON, NEW JERSEY

Prepared by
GeoEngineering, Inc.
100 Ford Road
Denville, NJ 07834

October 31, 1983
Our File No. 83522

Appendix C

*Spilled solvent
/ River Elevation*

This report presents our recommendations for separate remedial programs to recover solvents and to decontaminate ground water beneath the L. E. Carpenter property in Wharton, NJ. These recommendations are based upon data from previous investigations at the site which you have furnished to us, plus our own pumping tests and data analyses to determine aquifer characteristics. The intent of this report is to present for review and approval conceptual plans and a proposed sequence of activities to meet Consent Order requirements. Following that approval, more detailed design and implementation can proceed immediately.

EXISTING SITE CONDITIONS

Aquifer Characteristics

On October 11, 1983, pumping tests were performed at wells W-6, 7, 8, and 10. The tests were performed using a centrifugal pump discharging to the infiltration gallery. The drawdown and recovery at each pumping well was monitored using high speed electronic data logging equipment. The remaining wells were monitored manually using an electric water level probe.

The acquisition of early time data allowed the use of type curve analyses in the determination of the aquifer characteristics. The test results indicate permeability values of approximately 40 gpd/sq. ft. at wells W-6 and 10, 100 gpd/sq. ft. at well W-8 and 400 gpd/sq. ft. at well W-7. Considering that the wells tested are within a 100 foot radius, the permeability value at well W-7 would at first appear to be anomalous. However, considering that all the wells were constructed in a like manner using air rotary techniques and screened to the same depths, that the testing procedure was similar at all wells, and that pumping tests performed by others at well W-7 yielded similar results, it is assumed that the data is valid. Therefore, the aquifer characteristics, at least within the limited area in question, must be considered quite variable.

With the above in mind, analysis indicates that at a pumping rate of 10 gpm at W-7 the drawdown influence would extend approximately 150 to 200 feet away after 30 days of pumping.

Figure 1 represents the piezometric contours generated from water level measurements made on October 27, 1983. These are not contours of the solvent/groundwater interface. They are the water levels that would be present if the solvent were not depressing the water level and are the best indicator of the direction of groundwater flow. In general, groundwater movement is from the Rockaway River onto the site in both a northerly and

easterly direction with eventual discharge to the drainage channel along the eastern property line. Based on a permeability of 145 gpd/sq. ft. (the average of the pumping test results), a porosity of 30% and the gradient between W-9 and W-10 the average velocity of the ground water entering the site is estimated at 450 feet per year.

Floating Solvent

Figure 2 presents an isopach map of solvent-saturated soil thickness, based on solvent thicknesses measured in the wells on October 11, 1983. The thickness of solvent measured in a monitoring well is usually greater than the thickness of solvents in the soil adjacent to the well. The thicknesses vary as a function of the specific gravity ratio of water and the solvent in question. The isopach reflects the thickness of solvent in the soil and is based on a specific gravity of solvent of 0.87. Table 1 tabulates the measurements and resulting thicknesses and elevations. Considering the volume indicated by the isopachs and assuming a specific recovery of 20%, we estimate that approximately 20,000 gallons of solvents could be recovered.

Groundwater Quality

Chemical analyses of groundwater samples collected and tested in accordance with Consent Order requirements have detected significant amounts of Xylene, Ethyl Benzene, and Toluene in the groundwater at monitor well locations. At the time of this investigation, this analytical data was the only chemical information available. The water samples tested by the laboratory were obtained from the monitor wells by a bailing technique; a plastic bailer was lowered into the well to collect a sample from below the floating solvent layer, retrieved from the well, and its contents emptied into a sample container.

In our opinion, this sampling technique inevitably contaminates the groundwater sample and, therefore, the laboratory test results cannot be reliable representations of the chemical composition of the groundwater beneath the floating solvent layer. In order to produce reliable analytical results, the groundwater sample would have to be obtained by a technique which isolates the groundwater sample from the overlying solvents in the process of sample acquisition.

PROGRAM TO REMOVE SOLVENTS

The objectives of this program are: (1) to remove the layer of solvents floating on the surface of the water table (without regard to the thickness of the layer); (2) to control the boundaries of the solvent layer during the removal program, and; (3) to prevent off-site movement of the floating layer during the recovery operations. This program is based on the current information about solvent layer thickness and distribution, as shown in Figure 2.

Equipment and Procedure

We recommend that the solvent recovery program be based upon the removal of floating product from the existing group of 2" and 4" wells, and that it be accomplished by use of the "AUTO-SKIMMER", an automatic skimming and bailing device, manufactured by R. E. Wright Associates, Inc. This recommendation is based upon the ability of this device to recover floating hydrocarbons from wells of 2" or greater diameter and to remove any thickness of floating solvent. The portability of this device is also an advantage in this application, because the device may be quickly and easily moved from one monitor well to another as a means to respond to changing thickness or location of the floating layer during the removal program.

Our recommendation of this equipment is based upon discussions with the manufacturer, inspection of units in operation in the field, and discussions with others who have experience in application of the device to similar problems.

The AUTO-SKIMMER should be positioned initially at well W-10, to begin solvent recovery nearest the maximum solvent thickness. Initial solvent recovery would be undertaken at a rate of 200 gallons per week or less, with the objective of matching the removal of solvent to the rate of its replenishment by return flow from the edges of the solvent layer back toward the water table depression at the location of maximum solvent thickness.

After some period of initial solvent recovery without groundwater pumping, it will probably be necessary to enhance the water table depression at the recovery well by separate pumping of groundwater from that well. The pumping rate will be in the range of 10 to 30 gpm, depending upon which recovery well is being utilized, and upon how much control or depression of the water table is necessary to contain the floating solvent layer. This containment will be enhanced, in part, by the recharge flow from the Rockaway River, which is already having its effect as shown in Figures 1 and 2. A similar, temporary effect of containment by recharge flow can be established at the property line boundary, particularly between monitor wells 2 and 3, by constructing a recharge trench, into which the water table depression pump discharges its flow. This will create a

groundwater "mound" beneath the recharge trench, thus preventing flow away from the solvent recovery area into the drainage ditch adjacent to the property.

Solvent Disposal

The AUTO-SKIMMER contains an oil-water separator unit. The amount of water recovered with the floating solvent can be minimized by adjusting the frequency of bailing cycles, particularly when solvent thickness is small. The water separated from the solvent is usually returned to the well, except when the proportion of water to the solvent is large, such as in the removal of a solvent film during the final stages of clean up.

The solvent recovered by this unit is pumped to a storage tank, which is equipped with a level sensor control to prevent spillage by overflowing.

We recommend a solvent storage tank of at least 5,000 gallons capacity. This will match the tank truck capacity of most waste-hauling contractors. The recovered solvent would be collected periodically by such a contractor and taken to a licensed treatment/disposal facility.

Monitoring Performance

Thickness of the floating solvent layer should be assured in the 2" and 4" wells weekly during the initial solvent recovery operation. These initial measurements will facilitate the adjustment of the solvent recovery rate so as to diminish the boundaries of the floating layer slowly enough to minimize its breaking into several separate layers. After several weeks of experience, it should be adequate to measure product thickness in the well monthly, except when the recovery operations are moved to a new well, when weekly frequency may be appropriate to measure effectiveness.

Concurrent with measurements of solvent thickness, piezometric levels in the water table aquifer will be measured directly and calculated where necessary in order to monitor true piezometric gradients and flow directions in the aquifer. This will be of special significance during pumping to depress the water table elevation at the recovery well location.

GROUNDWATER DECONTAMINATION

The Consent Order requires "the removal of dissolved volatile organic compounds from the groundwater". It is reasonable to assume that solution of solvent compounds in the groundwater occurs at the solvent-water interface and that dissolved solvents may exist in a zone of groundwater immediately below this interface. Obviously, the character of the decontamination program depends primarily upon the thickness

Appendix D



NEW JERSEY

 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF WATER RESOURCES
 ENFORCEMENT & REGULATORY SERVICES

COMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLY
DATE July 17, 1984

GENERAL INFORMATION

PURVEYOR/ FACILITY <u>Dover Water Department</u>	
FILE LOCATION <u>Town of Dover, Morris County</u>	PW-ID # <u>1409001</u>
MAILING ADDRESS <u>37 No. Sussex St. Dover, New Jersey</u>	
ADMINISTRATOR <u>V. Frank Byarski, Pres. Water Comm.</u>	REQUIRED T <u>3</u> LICENSES W <u>1</u>
PHONE # Admin: <u>301-366-1221</u> Licensed Operators: T <u>2</u> <u>Andrew Du-Jack</u> W <u>1</u> <u>Same</u>	

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #1 2.45 mgd Well #3 1.44 mgd
Well #5 2.45 mgd - all located at Princeton Ave.
Well #4 1.57 mgd - not in use due to V.O. contamination
 Est Tot Eff Cap: 6.34 mgd

TREATMENT: source, type, capacities(mgd) Gas chlorination

Est Tot Eff Cap: 6.34 mgdFINISHED WATER STORAGE: descriptions, locations, capacities(mg): 3 ground tanks:1. Laurel St. 1.5 mg2. Crane Hill Rd 2.0 mg3. Highview Terrace 0.75 mgEst Tot Cap: 4.25 mg

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd):

Randolph Twp. N.J.A. 6" & 8" mainsRockaway Twp. 6" mainWharton Twp. 4" & 6" mainsEst Tot Avail: 4.25 mgdAUXILIARY POWER: location, type, capabilities: Gas Generators



NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION



Page # 1409005

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd month year) Max <u>3.9 7/83</u> Min <u>2.5 7/83</u> Annual Average <u>2.98</u>		
BULK PURCHASES (provider, mgd) <u>-</u>		
BULK SALES (customer, mgd) <u>-</u>		
NUMBER OF SERVICES <u>5507</u>		% METERED <u>100</u>
MUNICIPALITIES SERVED (est. services in each) <u>Dover</u> <u>Rockaway Twp</u> <u>Randolph Twp</u> <u>Victory Gardens</u> <u>Wharton</u>		
		TOTAL ESTIMATED POPULATION SERVED <u>22,000</u>
CURRENT/RECENT WATER RESTRICTIONS <u>None</u>		
NEW CONSTRUCTION (Project Numbers) <u>None</u>		
DISTRIBUTION MAINS: Sizing <u>2"</u> (min) to <u>16"</u> (max) Pressures <u>30 psi</u> (min) to <u>160 psi</u> (max) Hydrants/Flushing Program <u>- Yes</u>		

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Coliform	<u>25/month</u>	<u>25/month</u>
Inorganics	<u>every 3 years</u>	<u>Done 3/84</u>
Nitrate	<u>every 3 years</u>	<u>Done 3/84</u>
Trihalomethanes	<u>Quarterly</u>	<u>Quarterly</u>
Organics		
Turbidity		
<u>Secondary Reqs</u>	<u>every 3 years</u>	<u>Done 6/84</u>
<u>Radiological</u>	<u>every 4 years</u>	<u>Done 1982</u>
<u>V.C.</u>	<u>1/6 months ea. well</u>	<u>Done 1-84</u>

NAME OF LABORATORY Lake Laboratory CERTIFICATION # 14046
ADDRESS Wharton, New Jersey

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES None

TREATMENT DEFICIENCIES None

DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT
DIVISION OF WATER POLICY & SUPPLY

Permit No. _____
Application No. _____
County _____

WELL RECORD

1. OWNER Town of Dover ADDRESS Dover, N.H.
Owner's Well No. 5 SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Princeton Ave., Dover, N.H.
3. DATE COMPLETED 9-10-71 DRILLER Layne New York Co. Inc.
4. DIAMETER: top 18 inches Bottom 18 inches TOTAL DEPTH 64 Feet
5. CASING: Type Steel Diameter 18 inches Length 44 Feet
6. SCREEN: Type Johnson Size of ^{7/8} Opening 30 Diameter 18 inches Length 20 Feet
- Range in Depth { Top 44 Feet
Bottom 64 Feet Geologic Formation _____
- Tail piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per Minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date 9-29-71 Yield 1529 Gallons per minute
Static water level before pumping 14 Feet below surface
Pumping level 29 feet below surface after 8 72 hours pumping
Drawdown 15 Feet Specific Capacity 102 Gals. per min. per ft. of drawdown
How Pumped Vert. Turbine How measured orifice
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type None Yet Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR Public Supply AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER Analysis Attached Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ of
12. LOG Log Attached Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy)
13. SOURCE OF DATA Layne New York Co. Inc.
14. DATA OBTAINED BY D.G. Ward Date 12-16-71

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements etc.)

Driller

25-2-6397

DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT
DIVISION OF WATER POLICY & SUPPLY

Permit No. 25-1347
Application No. 1217
County _____

WELL RECORD

Board of Water Commissioners

1. OWNER Town of Dover ADDRESS Dover, New Jersey
Owner's Well No. New Well #1 SURFACE ELEVATION 600 Feet
(Above mean sea level)

2. LOCATION Princeton Ave. Well Field, Dover, N.J.3. DATE COMPLETED 4/1/66 DRILLER Burrows Well Drilling Co., Inc.4. DIAMETER: top 18 inches Bottom 18 inches TOTAL DEPTH 65 Feet5. CASING: Type Steel Diameter 24" inches Length 38'-8" Feet6. SCREEN: Type SS Size of Opening 2'-50 Slot 20'-110 Slot 18" inches Length 22 Feet

Range in Depth { Top _____ Feet
Bottom _____ Feet Geologic Formation _____

Tail piece: Diameter _____ inches Length _____ Feet

7. WELL FLOWS NATURALLY _____ Gallons per Minute at _____ Feet above surface
Water rises to _____ Feet above surface

8. RECORD OF TEST: Date 3/28-31/66 Yield 1,711 Gallons per minute
Static water level before pumping 14' 3" 11' 3" Feet below surface
Pumping level 24' 7 3/4" feet below surface after 72 hours pumping
Drawdown 13' 4 3/4" Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How Pumped Turbine Pump How measured Orifice 8 x 10
Observed effect on nearby wells None

9. PERMANENT PUMPING EQUIPMENT: Not Installed

Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches

10. USED FOR Public Supply AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily

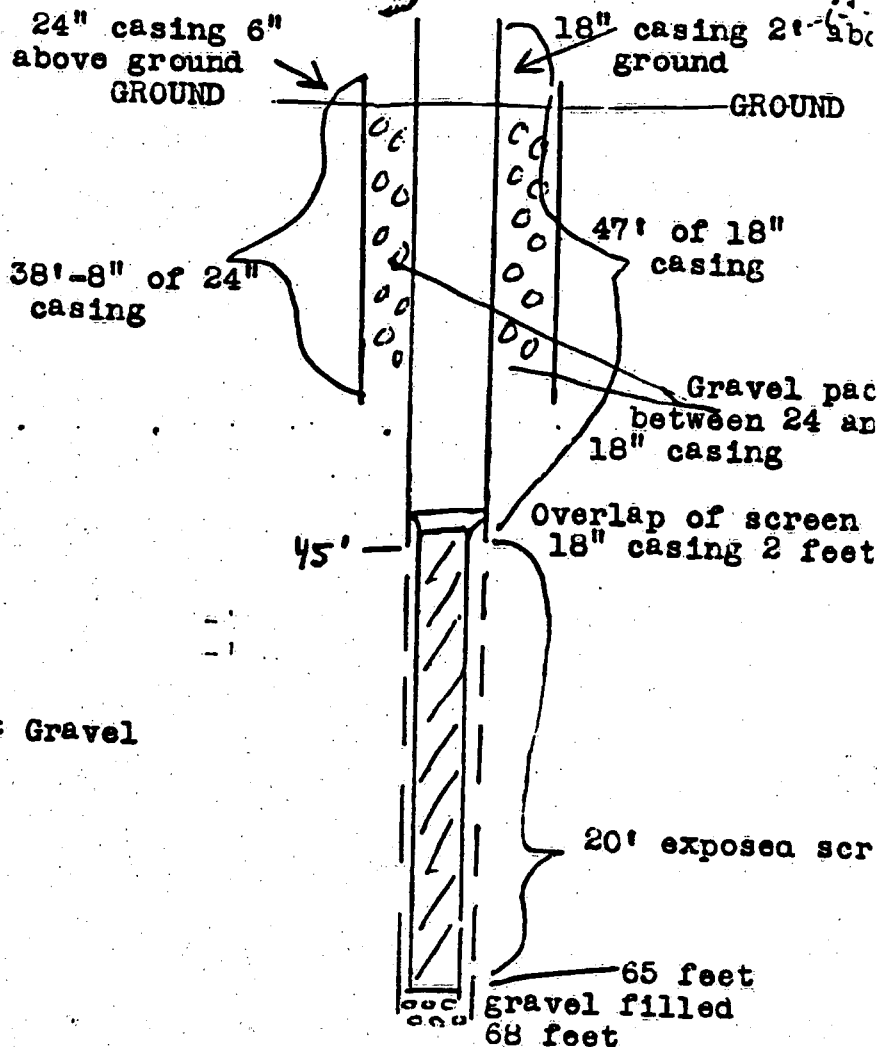
11. QUALITY OF WATER _____ Sample: Yes XXX No. _____Taste _____ Odor _____ Color _____ Temp. 50 °F

12. LOG Over Are samples available? Yes
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy)

13. SOURCE OF DATA Drillings14. DATA OBTAINED BY Burrows Well Drilling Co., Inc. Date 4/4/66

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated

Hard pan
& boulders
 25
 Dirty Sand
 35
 Cleaner Sand & Gravel
 45
 Coarser Sand & Gravel
 55
 W A Clean & Very coarse Sand & Gravel
 T 60
 E Finer Sand with clay
 R 64
 Sandy Clay, Hard Pan
 68



RECEIVED
 DE 7 11 59 AM '66
 GEOLOGY
 TOPOGRAPHY

DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT
DIVISION OF WATER POLICY & SUPPLY

Permit No. _____
Application No. _____
County _____

WELL RECORD

1. OWNER L. E. Carpenter and Company, Inc. ADDRESS 170 North Main Street, Wharton, N. J.
Owner's Well No. _____ SURFACE ELEVATION _____ Feet
(Above mean sea level)

2. LOCATION 170 North Main Street, Wharton, New Jersey

3. DATE COMPLETED 4-8-63 DRILLER D. F. Well Drilling Company, Inc.

4. DIAMETER: top 8 inches Bottom 8 inches TOTAL DEPTH 48 Feet

5. CASING: Type Solid Steel Diameter 8 inches Length 44 Feet

6. SCREEN: Type _____ Size of Opening _____ Diameter _____ inches Length _____ Feet

Range in Depth { Top _____ Feet
Bottom _____ Feet Geologic Formation _____

Tail piece: Diameter _____ inches Length _____ Feet

7. WELL FLOWS NATURALLY _____ Gallons per Minute at _____ Feet above surface
Water rises to _____ Feet above surface

8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How Pumped _____ How measured _____
Observed effect on nearby wells _____

9. PERMANENT PUMPING EQUIPMENT:

Type Installed by Others Mfrs. Name _____

Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____

Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet

Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches

10. USED FOR _____ AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily

11. QUALITY OF WATER _____ Sample: Yes _____ No _____

Taste _____ Odor _____ Color _____ Temp. _____ OF

12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy)

13. SOURCE OF DATA _____

14. DATA OBTAINED BY Donald J. McBride Date May 9, 1963

60	-	10 feet	-	Large Stone and Gravel	
10	-	20 "	-	Sand and Gravel	
20	-	25 "	-	Large Gravel stones and Sand	150 - 200 G.P.M.
25	-	40 "	-	Large Gravel stones and Sand	
40	-	48 "	-	Large Gravel and Coarse Sand	400 plus G.P.M.

RECEIVED

MAY 13 1963

DEPT. OF CONSERVATION &
ECONOMIC DEVELOPMENT
GEOLOGIC & TOP. SURVEY

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
ENFORCEMENT & REGULATORY SERVICESCOMPLIANCE EVALUATION INSPECTION
PUBLIC COMMUNITY WATER SUPPLYDATE FEBRUARY 2, 1981

GENERAL INFORMATION	
PURVEYOR/ FACILITY	<u>WHARTON WATER DEPARTMENT</u>
FILE LOCATION	<u>WHARTON BOROUGH</u> <u>THORN</u> PW-ID # <u>1439001</u>
MAILING ADDRESS	<u>180 WEST CENTRAL AVENUE WHARTON, N.J. 07885</u>
ADMIN.	<u>ANTHONY GUADAGNINO</u> REQUIRED T-2 W.M. MUST LICENSES W-1 " "
BUSINESS TELEPHONE # Admin.	<u>(201) 361-8444</u> Licensed Operators: T <u>(201) 361-3573</u> W <u>-</u>

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): THREE WELLS - WELL #1 W. CENTRAL
AVE. (0.72); WELL #2 W. CENTRAL AVE. (0.79); WELL #3
EILEEN COURT (1.00)

Est Tot Eff Cap: 2.51

TREATMENT: source, type, capacities(mgd): CHLORINATION AND FLUORIDATION AT
ALL WELLS

Est Tot Eff Cap: 2.51

FINISHED WATER STORAGE: descriptions, locations, capacities(mgd): TWO GROUND TANKS ON
IRONDALE ROAD - STEEL GROUND TANK (1.00); CONCRETE
GROUND TANK (0.50)

Est Tot Cap: 1.00

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd): TWO INTERCONNECTIONS
WITH DOVER WATER DEPARTMENT - BAKER AVE. 6" AND
WALNUT ST. A 4"

Est Tot Avail: -

AUXILIARY POWER: location, type, capabilities: A DIRECT DRIVE GASOLINE ENGINE FOR
WELL #1, A PORTABLE GENERATOR FOR CHLORINATION,
A DIRECT DRIVE DIESEL ENGINE AND GENERATOR FOR WELL #3
AND CHLORINATION.

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NJDEP - DIVISION OF WATER RESOURCES
PUBLIC COMMUNITY WATER SUPPLY INSPECTION



DELIVERY INFORMATION	
PLANT DELIVERED WATER (mgd/month/year) Max	1.03 (7/83) Min 0.67 (12/83) Annual Average 0.79 (1983)
BULK PURCHASES (provider, mgd)	NONE
BULK SALES (customer, mgd)	NONE
NUMBER OF SERVICES	1750
MUNICIPALITIES SERVED (est. services in each)	WHARTON BOROUGH 1735; ROCKAWAY TOWNSHIP 12; MINE HILL TOWNSHIP 3
	TOTAL ESTIMATED POPULATION SERVICED 5500
CURRENT/RECENT WATER RESTRICTIONS	NONE
NEW CONSTRUCTION (Project Numbers)	NONE
DISTRIBUTION MAINS:	Sizing 4" (min) to 24" (max) Pressures 50 LBS (min) to 100 LBS (max) Hydrants/Flushing Program YES/YES ONCE PER YEAR

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Coliform	6 PER MONTH	7 PER MONTH
Inorganics	1 PER 3 YRS	1 PER 3 YRS
Nitrate	1 PER 3 YRS	1 PER MONTH
Trihalomethanes	-	-
Organics	-	-
Turbidity	-	-
FECAL COLIFORM	DAILY	1 PER MONTH
RADIOLUCIDES	EVERY 4 YEARS	2 PER DAY
CORROSIVITY	BY 3/83	EVERY 4 YEARS
SECONDARY	EVERY 3 YEARS	DONE 10/26/83 NOT SUBMITTED IN ONLY PARTIALLY DONE

NAME OF LABORATORY DUNCAN LABORATORY CERTIFICATION # 14020
ADDRESS 2 BAKER AVENUE, DOVER, N.J. 07801

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES WELL #3 CONTAINS 21 PPM OF FUEL OIL

TREATMENT DEFICIENCIES THE AIR PRESSURE RELIEF LINE FOR WELL #3 IS NOT SCREENED; THE WELL #3 CHARGE VENT IS NOT SCREENED.



State of New Jersey

JOHN W. GASTON JR. P.E.
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

CN 029
TRENTON, NEW JERSEY 08625

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

M E M O R A N D U M

TO: Lance Miller, Superfund Coordinator

FROM: William Kramer through William F. Althoff and
Haig Kasabach, Acting State Geologist,
NJ Geological Survey

SUBJECT: L.E. Carpenter Superfund Submittal- Supplemental Information

The following information is being submitted at the request of Bob Hayton (HSMA) to support listing of the L.E. Carpenter (DAYCO) site in Wharton on the CERCLA National Priorities List.

1. At least one abandoned production well is present at the L.E. Carpenter facility. Well No. 1 is 48 feet deep and has a reported yield of 400 gpm (NJDEP Well Record, 1963). The driller's log does not indicate any type of aquitard from the surface to a depth of 48 ft. It is not known why this well was taken out of service. The fact that a production well is located at this facility together with the reported yield, indicates the relatively high permeability of this glacial outwash aquifer and its potential for future use.
2. The aquifer underlying the L.E. Carpenter site has been designated by USEPA as a Sole Source Aquifer under Section 1424(e) of the Safe Drinking Water Act. (Federal Register Vol. 49, No. 16, 1/24/84). In its decision to designate the Unconsolidated Quaternary Aquifer in the Rockaway River area, EPA clearly took potential future use of the aquifer into consideration.

"There are no existing alternative drinking water sources or combination of sources, which would provide 50% or more of the drinking water to the

Date 01/04/85

Page 1

designated area, nor is there any reasonably available alternative future source capable of supplying the drinking water demands of the Rockaway River Basin Area."

It is inconsistent for EPA to consider only current use of an aquifer when considering Superfund applications and use both current and future use in making Sole Source Aquifer determinations. Superfund should therefore consider both current and potential future use, particularly in Sole Source Aquifer areas.

3. EPA assumes that the presence of a river represents an aquifer boundary (i.e., equipotential boundary or a boundary of prescribed head). Several assumptions underlie EPA's position and need to be examined.

Traditionally, rivers have been considered natural boundaries to ground-water flow, with the aquifers on either side of the river behaving independently of one another. Ferris et al (1962) outlines the reasoning for this:

"For thin aquifers, the effects of vertical flow components are small a relatively short distance from the stream, and if the stream stage is not lowered by the flow to the real well, there is established the boundary condition that there shall be no drawdown along the stream position. Therefore, for most field situations it can be assumed (for practical purposes) that the stream is fully penetrating and equivalent to a line source at constant head."

The critical assumption in Ferris's definition is full penetration of the river. Obviously, one would be hard pressed to find a fully penetrating river under field conditions. The Rockaway River at Wharton is a partially penetrating river. Assuming a saturated thickness of 60 ft and a river depth of 1 1/2 ft, the Rockaway actually penetrates only 2.5% of the aquifer.

For the case of a partially penetrating river (the Rockaway) another consideration in establishing aquifer boundaries is whether the river bed is partially clogged with silts or clay. If this is the case, a semipervious or mixed boundary condition will exist limiting the flow of water from the river to the aquifer or vice versa.

Bear (1979) points out that a slightly penetrating river with a semipervious bed does not necessarily act as a boundary and should be regarded instead as a source or sink in a ground-water flow model.

Furthermore, if an aquifer boundary has sufficient permeability, ground water may flow into or out of the aquifer. The magnitude and direction of flow across the boundary are governed by hydraulic conductivity and the distribution of hydraulic head about the boundary (Bear, 1979). It is therefore possible for ground-water to flow beneath the river "boundary" from one part of the aquifer to another. In fact this has been demonstrated 5500 ft. south of L.E. Carpenter at the Dover Municipal Wellfield. Observations by the USGS (Rheaume, personal communication, 1985) show water level fluctuations up to one ft in observation wells 270 ft west of the Rockaway River due to pumping effects from the Dover Wellfield located EAST of the Rockaway River.

In another case being handled by this office a plume of contaminated ground water in a bedrock aquifer was found to pass beneath a brook. Although traces of PCE were found in the brook, the bulk of the plume remained in the aquifer and passed unaffected beneath the brook. The brook was not an aquifer boundary.

The selection of aquifer "boundaries" should not be based solely on geographic features such as rivers. Although a river can act as a recharging boundary, whether this condition holds over the entire saturated thickness of the aquifer beneath the river will depend on many factors, primarily vertical distribution of hydraulic head, permeability of the river bed, locations of pumping centers and pumping rates, aquifer thickness, width and depth of penetration of the river, and the hydraulic conductivity of the aquifer materials.

With regard to potential targets, unpublished work by the USGS (Rheaume, personal communication 1985) indicates that municipal water supply wells situated along the Rockaway River derive some of their recharge from the river. For example, Wharton wells No. 1 and 2 derive about 25-50% of their recharge from the river. These two wells are located 4000 ft upstream of L.E. Carpenter. Dover wells No. 1, 3 and 5 derive 10-20% of their recharge from the river. These wells are located 5500 ft downstream of L.E. Carpenter. Estimates of river recharge to Wharton well No. 3 (4500 ft

downstream) of L.E. Carpenter were not determined since this well is currently not in service.

There is insufficient data to draw conclusions about the river/aquifer relationship. A sheen is present on the river 90 feet SSE of Well No. 3. The Rockaway River abuts 900 ft of the L.E. Carpenter property, but only one river stage measurement point has been established along the river. In addition product thickness in the monitor wells distorts the actual water table elevation. Finally, if a semipervious layer is present in the river bed, then a delayed response would be expected between change in river stage and its effect on water table elevations.

WK:clb

cc: Bob Hayton, HSMA
Greg Cunningham, Northern Region Enforcement
HK/WFA/File

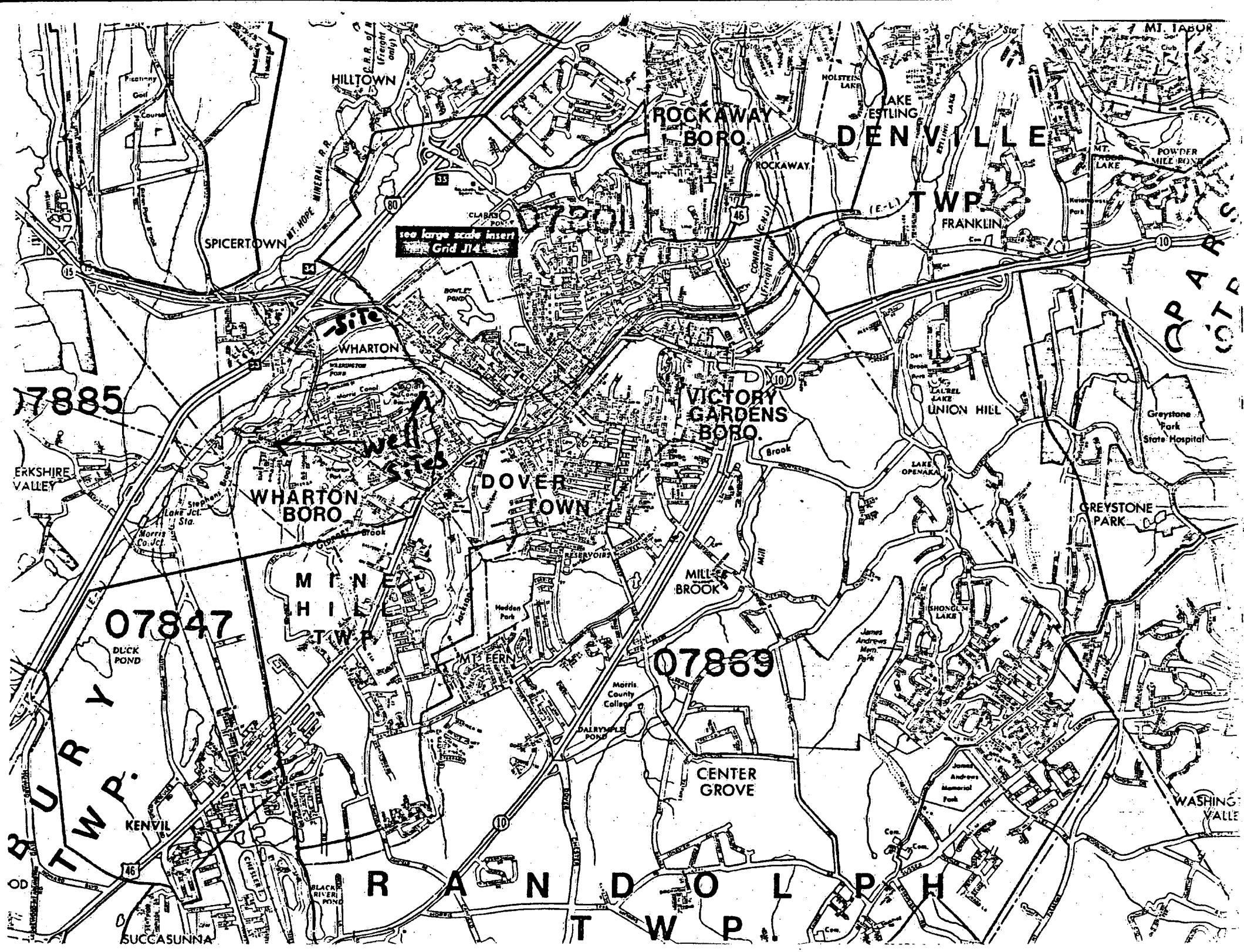
Attachment

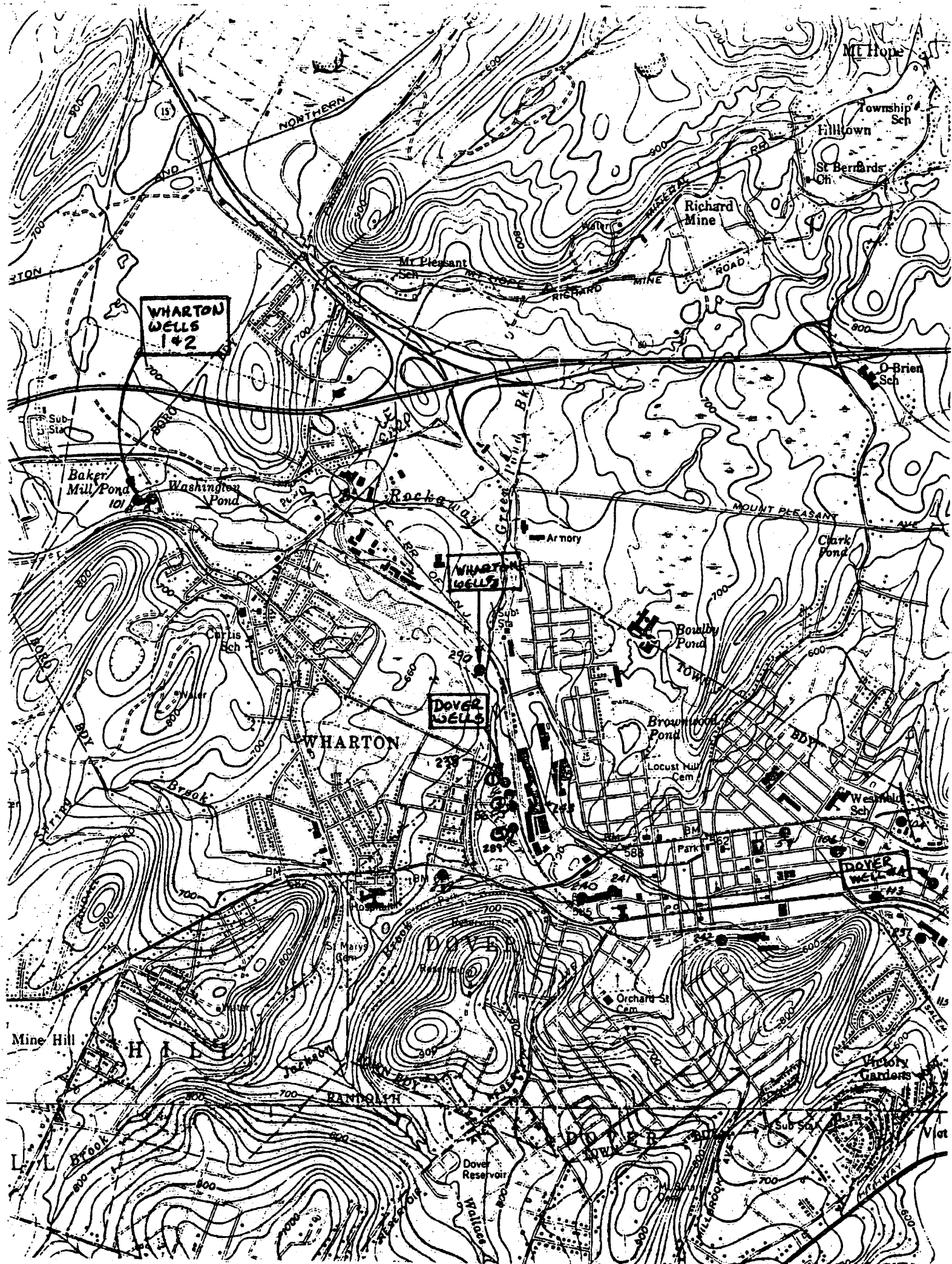
References

Bear, J., 1979 Hydraulics of Groundwater: McGraw Hill, NY, 569 p.

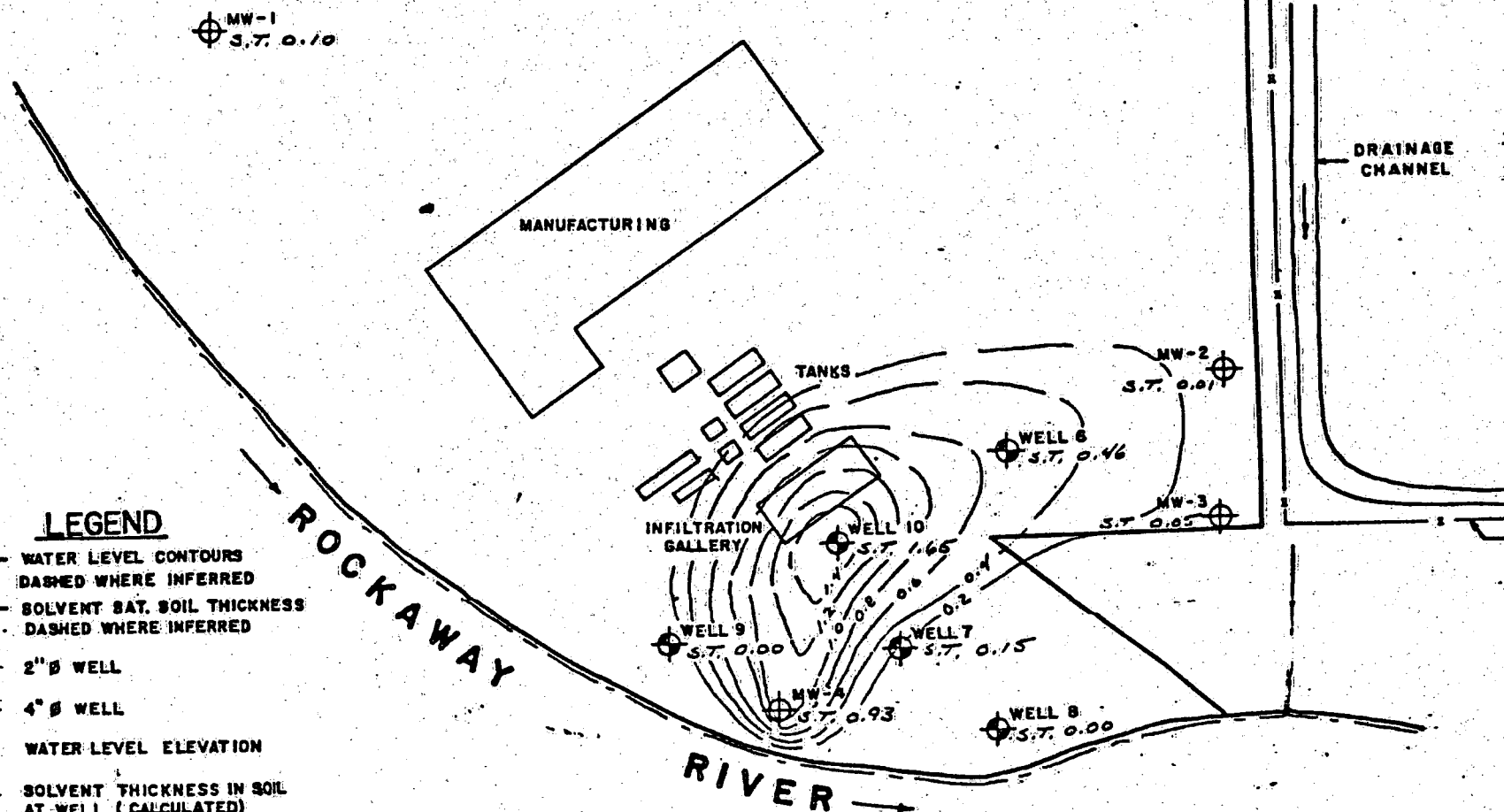
Ferris, J.G., Knowles, D.B., Brown, R.H. and Stullman, R.W., 1962 Theory of aquifer test: USGS Water-Supply Paper 1536-E, 174 p.

Rheaume, S., 1984 Personal communication, USGS unpublished data.





- LEGEND**
- WATER LEVEL CONTOURS
DASHED WHERE INFERRED
 - - - SOLVENT SAT. SOIL THICKNESS
DASHED WHERE INFERRED
 - ⊕ 2" Ø WELL
 - ⊕ 4" Ø WELL
 - W.E. WATER LEVEL ELEVATION
 - S.T. SOLVENT THICKNESS IN SOIL
AT WELL (CALCULATED)



TO File ER-46-82 THROUGH
FROM Tony Altieri Y.A. DATE September 2
SUBJECT: Special Sampling Rockaway River and
L.E. Carpenter, (NPDES #NJ0003611), Wharton Boro, Morris County

On May 14, 1982, the Division of Water Resources' Emergency Response Unit (ERCOM) responded to a request by the Division of Fish, Game and Wildlife to collect and obtain analyses of water samples at the above-noted site.

The Division of Waste Management had been contacted but no one was available from their unit to respond. Region 4, Enforcement, DWR, (Joe Miller) was also advised at this time.

A local fisherman had reported to the Division of Fish, Game and Wildlife that he had noticed what he thought was a spill of a heavy oil like material in the Rockaway River behind the L.E. Carpenter plant located at 170 North Main Street, Wharton Borough.

Arriving at the Rockaway River site at 12:30 P.M. Lt. Burns (F.G.&W.) and the writer located the oil on a small island in the middle of the river behind the L.E. Carpenter facility. (See attached sketch). Water and sediment samples were collected upstream, downstream, and at the spill location. No unusual odors were noticed at this time.

To try to determine the spill source it was decided to inspect the nearby L.E. Carpenter site, which was currently undergoing an extensive clean-up operation. Following a detailed site inspection, additional samples were collected at the L.E. Carpenter old abandoned waste lagoons (chemical waste disposal area) and adjacent pit. (See sketch for locations and sample numbers). This on-going clean-up is being handled by DRW, Region 4, Enforcement. (Greg Cunningham).

During our inspection of the site, Lt. Burns and the writer, were accompanied by Mr. Frank Aron, technical Director and Mr. Wally Yocum, technical Manager of L.E. Carpenter. Both of these men were advised of the presence of this spilled material but neither acknowledged responsibility for its occurrence. They did however, at the request of the inspectors, clean-up the material. No source for this spill could be determined at this time.

TA:bg

cc: G. Cunningham, DWR, Region 4, Enforcement
Lt. R. Burns, Division of Fish, Game, and Wildlife
ERCOM file ER-46-82

Appendix E



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

CN 029

TRENTON, NEW JERSEY 08625

JOHN W. GASTON JR., P.E.
DIRECTOR

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

M E M O R A N D U M

TO: Lance Miller, Superfund Coordinator

FROM: William Kramer THROUGH William F. Althoff and
Haig Kasabach, Acting State Geologist, NJGS

SUBJECT: L.E. Carpenter Superfund Submitted - Supplemental Information,
Wharton, Morris County

This information is being submitted at the request of Bob Hayton (HSMA) in support of a listing of the L.E. Carpenter (DAYCO) site on CERCLA NPL.

The ground water contamination at the L.E. Carpenter site occurs in the Un-consolidated Quaternary Aquifer in the Rockaway River area, a Sole Source Aquifer designated by USEPA. The aquifer begins at the water table. A drillers' log of the production well at L.E. Carpenter does not indicate any type of aquitard to a depth of 48 feet.

cc: Bob Hayton (HSMA)
Greg Cunningham

Appendix F

Appendix G

resubmitted his petition which included the necessary data to consider the package up-to-date and complete. EPA published a notice in the Federal Register. On November 13, 1981, which served to publish the highlights of the petition, to announce a public comment period, and to determine if there was sufficient public interest to hold a public hearing. Based on comments from concerned parties, the public comment period was extended to January 15, 1982. A total of 14 written comments were received. It was determined, that a public hearing was not necessary because public interest was not sufficient. No commenters requested a public hearing. Seven of the written responses were against designation. Most of the commenters were of the opinion that Federal projects were already subject to sufficient environmental impact studies which delineated appropriate actions to protect ground water. It was generally concluded that designation would only result in duplicate project review resulting in additional delays to Federal projects. Other comments addressed opposition to the arbitrary exclusion of the cities of Milwaukee, Racine, and Kenosha, since their absence from the calculations could be misleading by implying a higher percentage of total ground water usage versus the total water usage for the petitioned area.

Six responses indicated support for the designation of the described area. This group of responders consisted of local environmental organizations and State representatives. These commenters were concerned about the aquifers' susceptibility to contamination as well as the great cost that would be incurred to replace the water supplies. In addition to the comments, a local planning commission submitted technical data without making any recommendations about designation of the aquifer.

Analysis of Action

The original area proposed by the petitioner included "east of the western most boundary of the Niagara aquifer; west and south of the Wisconsin shoreline of Lake Michigan but excluding the cities of Milwaukee, Racine, and Kenosha; north of the Wisconsin-Illinois border."

In a similar case, Maryland Piedmont at 45 FR 57165 August 27, 1980, EPA enlarged the area designated by the petitioner because the area was not hydrologically defined. This determination to use hydrologic boundaries was upheld by the United States Court of Appeals for the Fourth Circuit. (Montgomery County, Maryland

vs US Environmental Protection Agency 862 F.2d 1040 (1981)).

The EPA has concluded that the reasons for excluding the cities of Milwaukee, Racine, and Kenosha as well as the use of the Wisconsin-Illinois State line as the southern boundary were arbitrary. Based on an extensive literature search and technical consultation with State agencies, the modified petition boundaries include the cities of Milwaukee and Racine since they are not hydrogeologically isolated from the rest of the Niagara aquifer system. The southern boundary is a ground water divide interpreted to be located north of the city of Kenosha.

Basis for Denial

EPA published proposed procedural regulations to implement Section 1424(e) September 29, 1977 at 42 FR 51820. Although the proposed regulations have not been promulgated in final form, the Agency uses the proposed regulations as guidance in processing petitions and making sole or principal source aquifer determinations. A sole or principal source aquifer is defined therein as an aquifer which supplies 50 percent or more of the drinking water for an area. The proposed regulations also require the Administrator to consider the availability of alternative sources of drinking water in making the determination.

The U.S. Geological Survey published a report on the *Water Use in Wisconsin*, 1979 (Open-File Report 82-444). Analysis of report data shows only 17 percent of the residential water usage within the proposed area is supplied by ground water. If the total water usage (residential, industrial, commercial, irrigation, livestock watering, etc) is considered for the proposed area, the total ground-water usage would be 28 percent. Finally, all of the above ratios for ground-water usage in the proposed area includes usage from the deeper Cambrian-Ordovician aquifer which is geologically separated from the petitioned shallower aquifers by the confining Maquoketa shale. Therefore, the percentage of ground-water usage for the petitioned aquifer fails to meet the 50 percent water usage criteria required for an aquifer to be designated as a sole source.

Dated: January 12, 1983.

William D. Ruckelshaus,
Administrator.

(FR Doc. 84-1289 Filed 1-23-84; 8:48 am)

BILLING CODE 5500-00-01

[OW-FRL-2480-4] **Unconsolidated Quaternary Aquifer, in the Rockaway River Area, New Jersey; Final Determination**

AGENCY: U.S. Environmental Protection Agency.

ACTION: Notice.

SUMMARY: Notice is hereby given that, pursuant to Section 1424(e) of the Safe Drinking Water Act, the Administrator of the U.S. Environmental Protection Agency (EPA) has determined that the Unconsolidated Quaternary Aquifer in the Rockaway River Basin is the sole or principal source of drinking water for the Rockaway River Basin Area, and that the Unconsolidated Quaternary Aquifer, if contaminated, would create a significant hazard to public health. As a result of this action, all Federal financially assisted projects constructed in the Rockaway River Basin Area will be subject to EPA review to insure that these projects are designed and constructed without a significant hazard to public health.

ADDRESSES: The data on which these findings are based is available to the public and may be inspected during normal business hours at the U.S. Environmental Protection Agency, Region II, Water Supply Branch, Room 824, 26 Federal Plaza, New York, New York 10278.

FOR FURTHER INFORMATION CONTACT: Damian J. Duda, Water Supply Branch, Environmental Protection Agency, Region II at 212-264-1800.

SUPPLEMENTARY INFORMATION: Notice is hereby given that pursuant to Section 1424(e) of the Safe Drinking Water Act, (42 U.S.C. 300f, 300h-3(e), Pub. L. 93-523), the Administrator of the U.S. Environmental Protection Agency (EPA) has determined that the Unconsolidated Quaternary Aquifer of the Rockaway River Basin Area is the sole or principal source of drinking water for the Town of Boonton, Boonton Township, Denville, Dover, Jefferson Township, Mine Hill, Mountain Lakes, Randolph Township, Rockaway Borough, Rockaway Township, Roxbury, Victory Gardens and Wharton. Pursuant to Section 1424(e), Federal financially assisted projects constructed in the Rockaway River Basin Area, which is delineated by the watershed boundaries of the Rockaway River, the Black (Upper Lamington) River Basin in Roxbury Township and Lake Arrowhead in Denville and Mountain Lakes, will be subject to review.

I. Background

Section 1424(e) of the Safe Drinking Water Act states:

If the Administrator determines, on his own initiative or upon petition, that an area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health, he shall publish notice of that determination in the Federal Register. After the publication of any such notice, no commitment for Federal financial assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the Administrator determines may contaminate such aquifer through a recharge zone so as to create a significant hazard to public health, but a commitment for Federal financial assistance may, if authorized under another provision of law, be entered into to plan or design the project to assure that it will not so contaminate the aquifer.

On November 30, 1979, EPA received a petition from the Upper Rockaway River Watershed Association requesting that EPA designate the Quaternary Wisconsin stratified drift deposits as a sole source aquifer. In response to this petition, EPA published a notice in the Federal Register on September 11, 1980 (45 FR 60010) announcing a public comment period and setting a public hearing date. A public hearing was conducted on October 15, 1980, and the public was requested to submit comments on the petition until November 14, 1980.

II. Basis for Determination

Among the factors to be considered by the Administrator in connection with the designation of an area under Section 1424(e) are: (1) whether the Unconsolidated Quaternary Aquifer is the Area's sole or principal source of drinking water, and (2) whether contamination of the aquifer would create a significant hazard to public health.

On the basis of information available to this Agency, the Administrator has made the following findings, which are the basis for the determination noted above:

1. The Quaternary deposits represent an aquifer which currently serves as the "sole source" of drinking water for approximately 90,000 residents.

2. There are no existing alternative drinking water sources or combination of sources, which would provide fifty percent or more of the drinking water to the designated area, nor is there any reasonably available alternative future source capable of supplying the drinking water demands of the Rockaway River Basin Area.

3. The Unconsolidated Quaternary Aquifer is glacial in origin and is composed of unconsolidated sand and gravel deposits.

As a result of its highly permeable soil characteristics, the Unconsolidated Quaternary Aquifer is susceptible to contamination through its recharge zone from a number of sources, including, but not limited to, chemical spills, highway runoff, septic tanks, leaking storage tanks, and leaching from open dumps.

There is current evidence of localized contamination of the aquifer from gasoline spills, individual disposal systems, leaking fuel tanks, and wastewater treatment systems. Since ground water contamination can be difficult or impossible to reverse, and since this aquifer is relied on for drinking water purposes by the general population, contamination of the aquifer would pose a significant hazard to public health.

III. Description of the Unconsolidated Quaternary Aquifer and its Recharge Zone

The Unconsolidated Quaternary Aquifer underlies thirteen municipalities in Morris County, in the Rockaway River Basin Area. The municipalities are the Town of Boonton, Boonton Township, Denville, Dover, Jefferson Township, Mine Hill, Mountain Lakes, Randolph Township, Rockaway Borough, Rockaway Township, Roxbury, Victory Gardens and Wharton. The area in which Federal financially assisted projects will be subject to review is the area which includes the unconsolidated Quaternary Aquifer's (1) recharge zone—delineated by the floodplain areas of the Rockaway River Basin and a portion of the Black (Upper Lamington) River Basin and (2) streamflow source zone—the watershed boundaries of the Rockaway River Basin, a portion of the Black (Upper Lamington) River Basin and Lake Arrowhead.

IV. Information Utilized in Determination

The information utilized in this determination includes the petition, written and verbal comments submitted by the public and the New Jersey Department of Environmental Protection and a study on the available water supply in the Rockaway Area (Tetra-Tech, 1979).

The above data is available to the public and may be inspected during normal business hours at the Environmental Protection Agency Region II, Water Supply Branch, Room 824, 26 Federal Plaza, New York, New York.

V. Project Review

EPA Region II is working with the Federal agencies that may in the future provide financial assistance to projects in the area of concern. Interagency procedures have been developed in which EPA will be notified of proposed commitments by Federal agencies for projects which could contaminate the Unconsolidated Quaternary Aquifer. EPA will evaluate such projects and, where necessary, conduct an in-depth review, including soliciting public comment where appropriate. Should the Administrator determine that a project may contaminate the aquifer through its recharge zone so as to create a significant hazard to public health, no commitment for Federal financial assistance may be entered into. However, a commitment for Federal financial assistance may, if authorized under another provision of law, be entered into to plan or design the project to assure that it will not so contaminate the aquifer.

Although the project review process cannot be delegated, the U.S. Environmental Protection Agency will rely to the maximum extent possible on any existing or future State and local control mechanisms in protecting the ground water quality of the Unconsolidated Quaternary Aquifer.

Included in the review of any Federal financially assisted project will be coordination with the State and local agencies. Their comments will be given full consideration and the Federal review process will attempt to complement and support State and local ground water protection mechanisms.

VI. Summary and Discussion of Public Comments

Most of the comments received from Federal, State and local government agencies and from the public were strongly in favor of designation. Only two commenters expressed any reservations regarding the designation.

Two commenters felt that EPA currently has sufficient ground water protection mechanisms, which, together with State and local mechanisms, render a sole source designation unnecessary. Each felt that a municipality should have the responsibility of protecting its own water resource. Although a number of ground water protection measures are available at the Federal, State and local level, none of these, either individually or collectively, permit EPA to act as directly and comprehensively as would a sole source designation in the review and approval of Federal financially assisted projects. In addition, EPA feels

that the sole source project review process will foster integration rather than duplication of environmental review efforts.

One other commenter, although generally in favor of the designation had some recommendations to the existing petition. Specifically the two recommendations are (1) to extend the recharge area and (2) to expand any project review to include both federally assisted and non-federally assisted projects mainly public and semi-public. EPA has evaluated the recharge suggestion and determined the extent of the recharge area for project review. At present, only Federal financially assisted projects can come under sole source review. EPA does not have the legal means to review any non-federally funded project without amendment to the Safe Drinking Water Act. Federal financial assistance will only be withheld in those instances where it is determined that a proposed project may contaminate the aquifer so as to create a significant hazard to public health and no acceptable remedial measures are available to prevent the potential hazard.

VII. Economic and Regulatory Impact

Pursuant to the provisions of the Regulatory Flexibility Act (RFA), 5 U.S.C. 605(b), I hereby certify that the attached rule will not have a significant impact on a substantial number of small entities. For purposes of this Certification the "small entity" shall have the same meaning as given in Section 601 of the RFA. This action is only applicable to the Rockaway River Basin Area. The only affected entities will be those Area-based businesses, organizations or governmental jurisdictions that request Federal financial assistance for projects which have the potential for contaminating the aquifer so as to create a significant hazard to public health. EPA does not expect to be reviewing small isolated commitments of financial assistance on an individual basis, unless a cumulative impact on the aquifer is anticipated; accordingly, the number of affected small entities will be minimal.

For those small entities which are subject to review, the impact of today's action will not be significant. Most projects subject to this review will be preceded by a ground water impact assessment required pursuant to other Federal laws, such as the National Environmental Policy Act, as amended (NEPA), 42 U.S.C. 4321, et seq. Integration of those related review procedures with sole source aquifer review will allow EPA and other Federal agencies to avoid delay or duplication of

effort in approving financial assistance, this minimizing any adverse effect on those small entities which are affected. Finally today's action does not prevent grants of Federal financial assistance which may be available to any affected small entity in order to pay for the redesign of the project to assure protection of the aquifer.

Under Executive Order 12291, EPA must judge whether a regulation is "major" and, therefore, subject to the requirement of a Regulatory Impact Analysis. This regulation is not major because it will not have an annual effect of \$100 million or more on the economy, will not cause any major increase in costs or prices, and will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of United States enterprises to compete in domestic or export markets. Today's action only affects the Rockaway River Basin Area. It provides an additional review of ground water protection measures, incorporating State and local measures wherever possible, for only those projects which request Federal financial assistance. This regulation was submitted to office of Management and Budget for review under EP 12291.

Dated: January 12, 1983.
William D. Ruckelshaus,
Administrator.
[FR Doc. 84-1828 Filed 1-23-84; 8:43 am]
BILLING CODE 5550-50-M

[SA-FRC 2511-6]

Science Advisory Board; Environmental Engineering Committee; Open Meeting

Under Pub. L. 92-463, notice is hereby given that a two-day meeting of the Environmental Engineering Committee (EEC) of the Science Advisory Board will be held in Conference Room 3906-3908M, U.S. Environmental Protection Agency, 401 "M" Street, SW., Washington, D.C., on February 8-9, 1984. The meeting will begin at 9:00 a.m., and last until approximately 5:00 p.m. each day.

The agenda for the meeting will include a continuation of the Committee's review of data supporting proposed effluent guidelines for the organic chemical and plastics/synthetic fibers industry. Other agenda items are not yet firm, but will probably include discussions on RCRA-related issues, control technology research, and sludge management.

The meetings is open to the public. Any member of the public wishing to participate or obtain further information

about the meeting should contact Harry C. Torno, Executive Secretary, at (202) 382-2552, or Terry F. Yosie, Staff Director, Science Advisory Board, at (202) 382-4128. Public comment will be accepted at the meeting. Written comment will be accepted in any form, and there will be opportunity for brief oral statements. Anyone wishing to make such comment must contact Mr. Torno prior to February 3, 1984, in order to be placed on the agenda.

EPA has recently instituted new visitor control procedures. In order to minimize any inconvenience, persons wishing to attend are requested to call Ms. Cheryl Fauntleroy at (202) 382-2552, so that they may be included on a roster that will be prepared for the building security guards. Attendees are also requested to enter the building at the West Tower entrance.

Dated: January 16, 1984.

Terry F. Yosie,
Staff Director, Science Advisory Board.
[FR Doc. 84-1894 Filed 1-23-84; 8:45 am]
BILLING CODE 5550-50-M

[OW-FRL-2511-3]

Final Determination; Groundwater System of the Upper Santa Cruz Basin and the Avra-Altar Basin of Pima, Pinal, and Santa Cruz Counties, Arizona; Aquifer Determination

AGENCY: Environmental Protection Agency.

ACTION: Final Determination.

SUMMARY: Pursuant to Section 1424(e) of the Safe Drinking Water Act, the Administrator of the U.S. Environmental Protection Agency (EPA) has determined that the Upper Santa Cruz and Avra-Altar Aquifers are the sole or principal source of drinking water for the Tucson Active Management Area, as established by the 1980 Arizona Groundwater Management Act, and that these aquifers, if contaminated, would create a significant hazard to public health. As a result of this action, Federal financially assisted projects constructed anywhere in the Tucson Active Management Area will be subject to EPA review to ensure that these projects are designed and constructed so that they do not create a significant hazard to public health.

ADDRESSES: The data on which these findings are based are available to the public and may be inspected during normal business hours at the U.S. Environmental Protection Agency, Region 9, Water Management Division, A

Request for and Authorization of Overtime Work

(See reverse for instructions and Privacy Act Statement)

1. For Pay Period Ending

7/27/91

2. Account Number

See Below

3. Document Control Number

4. Estimated Cost

5. Check One

☒ Original Request ☐ Extension

Extension

Authority for approving payment for overtime, or the allowance of compensatory time in lieu of payment for overtime, is reserved only to those officials stated in Agency delegations.

Overtime must be authorized prior to its performance except in cases of emergency, and overtime actually worked under this authorization must be recorded on the employee's Time and Attendance (T&A) Card, EPA Form 2565-1, -2, or -3.

6. Justification or Reason

To perform Technical Review of Superfund - RI/FS/RD documents - CIBA Geigy (8hrs)

Account Number - 1TGB02D687

7. Employee's Name	8. Social Security Number	9. Grade or Rate	10. Authorized Overtime		
			Estimated Number of Hours	Comp Time	Dates
Frederick Luckey	027424630	13	8		7/26/91
11. Requested by Vincent Pitruzzello			Title Chief/PSB		Date
12. Approved by Kathleen C. Callahan			Title Director/ERRD		Date

Privacy Act Statement

Section 301 of Title 5 to the U.S. Code authorizes collection of this information. The primary use of this information, including the Social Security Number, is by management and the payroll office to authorize your request for overtime work. Additional disclosures of this information may be made to: the U.S. Treasury for it to issue paychecks; Federal, State, and local taxing authorities through annual W-2 statements; Federal, State, and local law enforcement agencies when EPA is aware of a violation or possible violation of civil or criminal law; Federal agencies when conducting an investigation of you for employment or security reasons; Federal, State, and local agencies maintaining civil, criminal, or other enforcement information relevant to EPA's decision concerning the hiring or retention of an employee or the issuance of a security clearance; and to a Member of Congress when the Member informs us you have authorized his/her access to the record.

Collection of your Social Security Number is authorized by Executive Order 9397. Furnishing the information on this form, including your Social Security Number, is voluntary, but failure to do so may result in disapproval of this request.

Instructions

- | Item | |
|-------------|--|
| 1 | Insert the ending date of the pay period in which overtime is worked |
| 2 and 3 | Self-explanatory. |
| 4 | Covers the total dollar value of all overtime hours requested for the pay period or of the additional hours if "Extension" in Item 5 is checked. |
| 5 | Check "Extension" if this authorization increases the hours previously authorized for the same pay period, otherwise check "Original Request." |
| 6 through 9 | Self-explanatory |
| 10 | Check the "Comp Time" column to indicate that the employee requests compensatory time in lieu of overtime pay. |
| 11 and 12 | Self-explanatory |